

THE AMERICAN ELEVATOR AND GRAIN TRADE

Established 1882 Entered as second-class matter June 26, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879. Established 1882

PUBLISHED BY
Mitchell Brothers Publishing Co.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

One Dollar Per Annum
SINGLE COPIES, 15 CENTS

VOL. XXXVIII

431 South Dearborn Street, Chicago, Ill., December 15, 1919

No. 6

Our Ways and Our Means
Encourage Patronage

McKenna & Rodgers

Grain Merchants
Consignments

60 BOARD OF TRADE
CHICAGO

We Meet Your Needs in Deeds

TAYLOR & BOURNIQUE CO.

Grain Merchants
MILWAUKEE, WISCONSIN

WESTERN BRANCHES: Department H EASTERN BRANCHES:
Chicago, Ill. New York City, N. Y.
Sioux City, Ia. Boston, Mass.
Mason City, Ia. Philadelphia, Pa.
Des Moines, Ia. Buffalo, N. Y.
Fort Dodge, Ia. Pittsburgh, Pa.
Sioux Falls, S. Dak.

Elevator Capacity
Milwaukee and Chicago,
2,000,000
Bushels

TRACK BIDS—SALES TO ARRIVE QUALITY AND UNIFORMITY
Consign to us at Milwaukee, Chicago, Minneapolis, Sioux City, Ia.; Des
Moines, Ia.; or Schneider, Ind.

Buyers
OF

**Clover
AND
Timothy
Seed**

Mail Samples for Top Market Bids

**Milwaukee
Seed Company**

MILWAUKEE, WIS.

Established 1877
LANGENBERG BROS. GRAIN CO.
GRAIN and HAY

We Solicit Your Consignments

St. Louis Kansas City New Orleans Oklahoma City

THE ILLINOIS SEED CO.
GRASS SEEDS FIELD

BUYERS CHICAGO SELLERS

Ask for Samples

Mail Samples for Bids

TIMOTHY, CLOVERS, ALSIKE, ALFALFA, MILLETS, RED-
TOP, BLUEGRASS, SEED GRAIN, GRAIN BAGS, Etc.

GRAIN, PROVISIONS

STOCKS AND BONDS

**SIMONS, DAY
& Co.**

Phone Wabash 7860 322-330 Postal Telegraph Building CHICAGO
(All Departments)

We solicit consignments and furnish bids on Cash Grain and Provisions for all markets

The WAGNER

Covers all markets. Ask for the weekly or
daily issue. Has the largest circulation of any
grain literature.

Stocks E. W. Wagner & Co. Bonds
Grain Cotton
Members New York Stock Exchange
Members New York Cotton Exchange
Members Chicago Board of Trade
Continental & Commercial Bank Bldg.

LETTER

Established 32 Years

CHICAGO

Courteen Seed Co.
MILWAUKEE, WISCONSIN

**CLOVER and TIMOTHY
SEEDS**

SPECIAL PRICES ON GRAIN BAGS

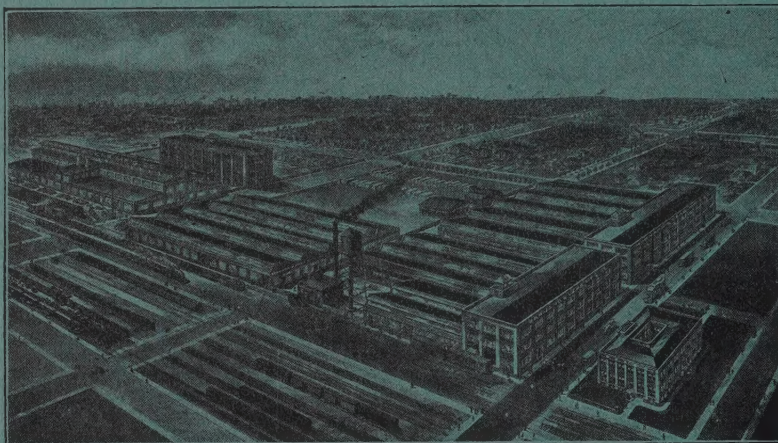
Write Us When Interested

BACHE SERVICE

USE IT
ON

GRAIN AND SEEDS

Chicago, Ill.



The Holiday Season affords an opportunity to express again the pleasure we derive from our business relations with you, and on behalf of our entire organization we wish you and yours a full Measure of Christmas Joy and a Prosperous New Year.

Barnard & Leas Mfg. Co.

MILL BUILDERS AND MILL FURNISHERS

Established 1860 Moline, Illinois



Extending the Season's Greetings

To our friends and patrons everywhere, with the hope that the coming year will be one of prosperity to the grain trade and that this great industry after its long period of restriction will come into its own again.

Our efforts for 1920 will be confined, as in the past, in manufacturing and selling the

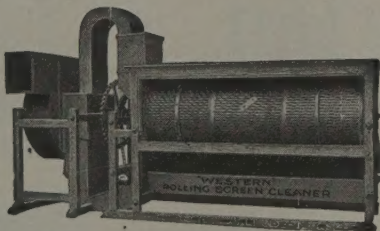
"WESTERN LINE"

which experience has proven, is of that high quality which represents the difference between superior and just ordinary machinery. We guarantee prompt shipments and satisfactory service.

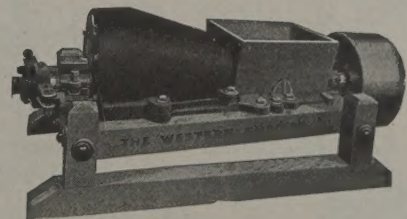
Write for Descriptive Catalog

UNION IRON WORKS DECATUR, ILLINOIS

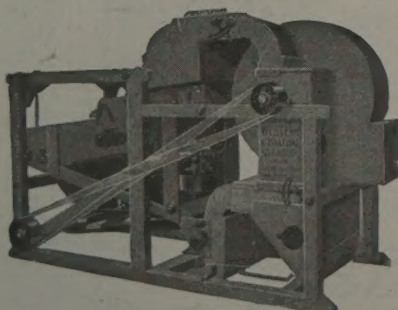
Complete Line of Shellers and Cleaners Kept at
1400-1402 West 12th Street KANSAS CITY, MO.



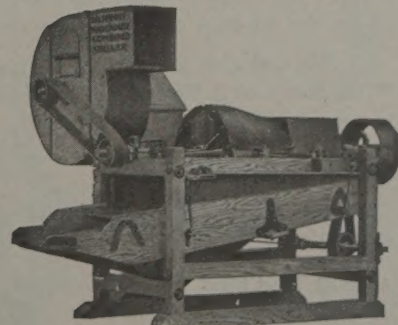
"Western" Rolling Corn Screen Cleaner



"Western" Pitless Warehouse Sheller



"Western" Gyrating Cleaner



"Western" Warehouse Combined Sheller



"Flavo" Flour

"Famous for its Flavor"

A FLOUR of incomparable sweetness, milled by a new process which retains in the flour the health building vitamins and the sweet, nut-like flavor of the crushed wheat. This perfectly milled flour produces a delightfully flavored loaf of ideal color and texture.

By reducing to a minimum, the duration of contact between rollers and the wheat stock, by the immediate separation of the pure and impure ground stocks, by the proper treatment of the wheat germ and by the elimination of unnecessary elevators and conveyors, the flour made by this new process preserves its natural creamy white bloom and is entirely free from attrition dust, the presence of which destroys the real flavor and nutritive value of many flours. This new process mill, known as

The AMERICAN "MIDGET" MARVEL MILL

is revolutionizing the milling of flour. There are now 1800 in operation in the United States. Everywhere people are demanding the better flavored, more nutritious flour that it makes.

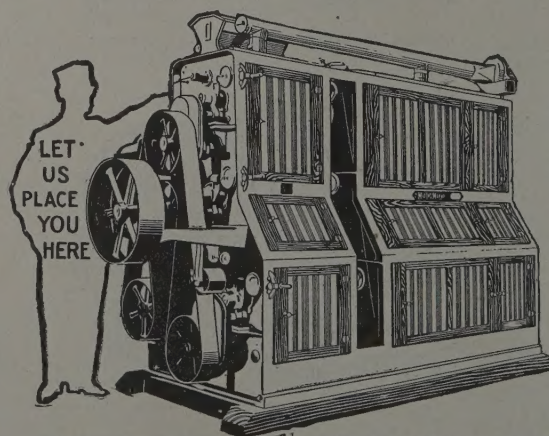
If you haven't tried flour made on the "Midget" Marvel get a sack at once—you will never use any other. If there isn't one of these mills in your community, write us for the address of the nearest one.

We will also be glad to send you a revised copy of "The Story of a Wonderful Flour Mill." You will find it most interesting.

THE ANGLO-AMERICAN MILL CO.

586-592 Trust Bldg.

OWENSBORO, KENTUCKY.



SUCRENE FEEDS

The Feeds That Nourish The Stock

Bring Repeat Orders

Almost any feed can be sold to some stock raisers **ONCE**.

Sucrene Feeds are the "Come-Back-for-More" Feeds, because the quality is always there.

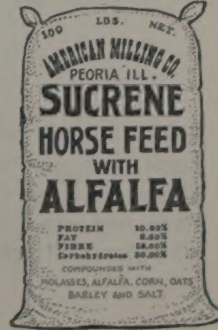
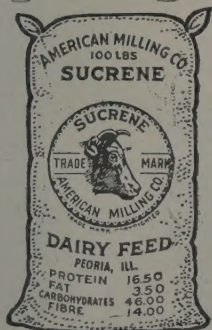
You have Sucrene reputation pulling for you all the time—the reputation that's based on 19 years of recognized leadership—more firmly established in the good will of the stock feeding world today than ever before.

THE TILL TELLS THE TALE

Keep your mind's eye on the Sucrene Line. In the near future our big new mill—larger, more modern than the one destroyed by fire recently—will turn out Sucrene Feeds of standard quality which will be offered to the trade at money-making prices. Due announcement will be made to the trade.

Send in your orders for Sucrene Poultry Scratch Feeds. We fill orders promptly on the full line. Address Main Office, Peoria, Ill.

AMERICAN MILLING COMPANY
Main Office and Mills Peoria, Ill.
Southern Mill Owensboro, Ky.



CINCINNATI

THE NATION'S HAY CENTER



CINCINNATI is the ideal center for the hay trade. Railroad facilities could not be better. Trunk lines run from all the adjacent hay growing states to this city, thence lead to the consuming section of the South and East, assuring quick returns and conditions favorable to top prices at all times.

Under the "square deal" plugging system the grade of hay can be established to an absolute certainty. There is no chance of change in the price originally quoted and all dissatisfaction, complaints and subsequent inspections are eliminated. Shippers are protected and get what the hay is honestly worth and all that it is worth.

Look at the map and market your hay through any of the following responsible members of the

Cincinnati Grain & Hay Exchange

Brouse-Skidmore Grain Co., The
Early & Daniel Co., The
Fitzgerald Bros. Co., The
De Mollet Grain Co.
Eikenberry-Fitzgerald Co., The

Blumenthal, Max
Gowling, Alfred
Costello Grain & Hay Co., The Joseph F.
Gale Grain Co., The A. C.
Dorsel Grain Co., The
Cleveland Grain Co., The

Granger, Dan B., & Co.
Bunting & Hill Co., The
Cross Co., The D. O.
Gray & Co., Ralph
Bender, A.
Brown & Co., W. L.

Approved- FOR THE MILLING INDUSTRY

The Millers Mutual Fire Insurance Companies, through the Mutual Fire Prevention Bureau of Oxford, Mich., have APPROVED the use of NATIONAL RENEWABLE FUSES for flour mills and grain elevators.

Until now, these plants could not use any renewable fuses, as they were considered unsafe.

CANNOT BE OVERLOADED

Only one element at a time can be used in the NATIONAL RENEWABLE FUSE. Use NATIONAL RENEWABLE FUSES for simplicity, security and saving.

Powder packed renewable cartridge confines and smothers the fierce heat of the arc when the fuse blows.

Rating stamped in the metal on the "tell tale" indicator, which keeps the rating constantly in view. Send coupon for full information and prices.

The NATIONAL Renewable FUSE

FEDERAL ELECTRIC COMPANY

Representing Federal Sign System (Electric)

LAKE AND DESPLAINES STREETS, CHICAGO

91 New Montgomery Street
SAN FRANCISCO, CAL.

627-649 West 43rd Street
NEW YORK, N. Y.

Branches in all large cities

We make a complete line of renewable fuses, both 250 and 600 volts, up to and including 600 amperes.

Rating always in plain view

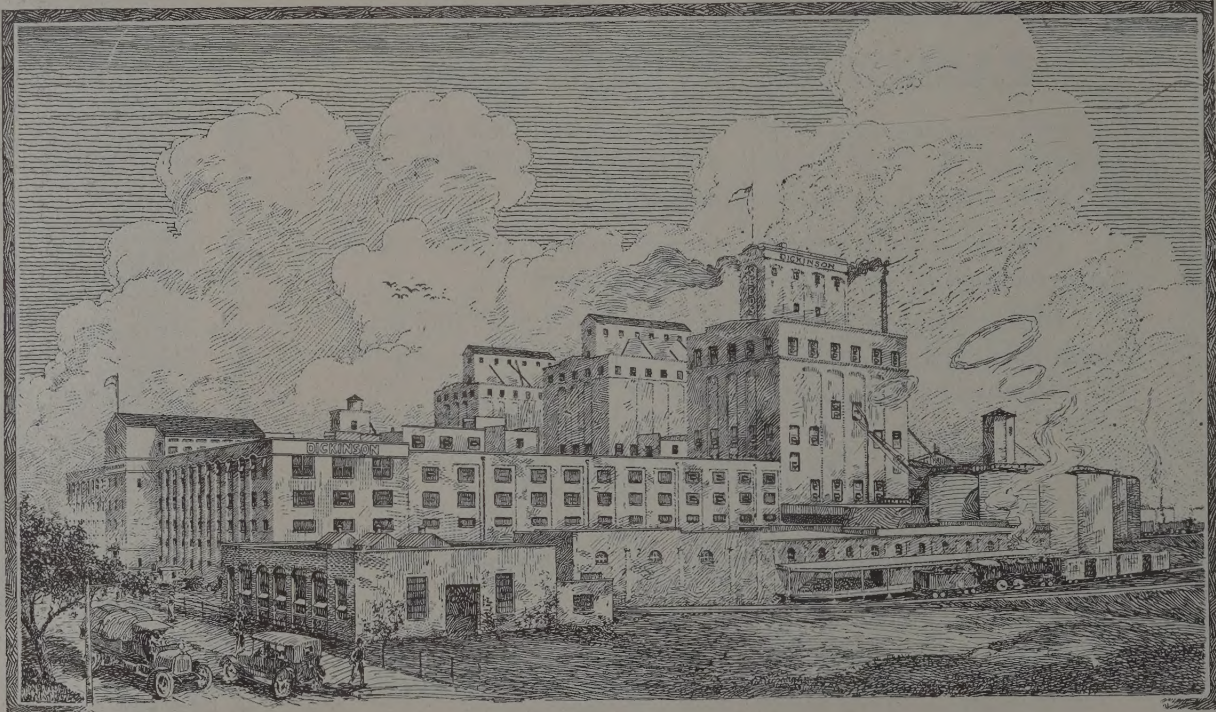


Send
Coupon
Now

FEDERAL ELECTRIC COMPANY, Representing
Federal Sign System (Electric), Lake and Desplaines Sts., Chicago
Please send full information and prices of National Renewable Fuses.

Name
Address
Company
Dealer's Name and Address

ABUT-12



A Season's Greeting

We take the occasion on this approach to the Holiday Season to extend to all our friends and patrons everywhere most cordial wishes for

Health, Prosperity and Happiness

during the coming year.

The Albert Dickinson Company

Grass and Field
Seeds

Poultry and Stock
Feeds

Chicago, Ill

Minneapolis, Minn.



Conveyor Belts

GRAINSTER

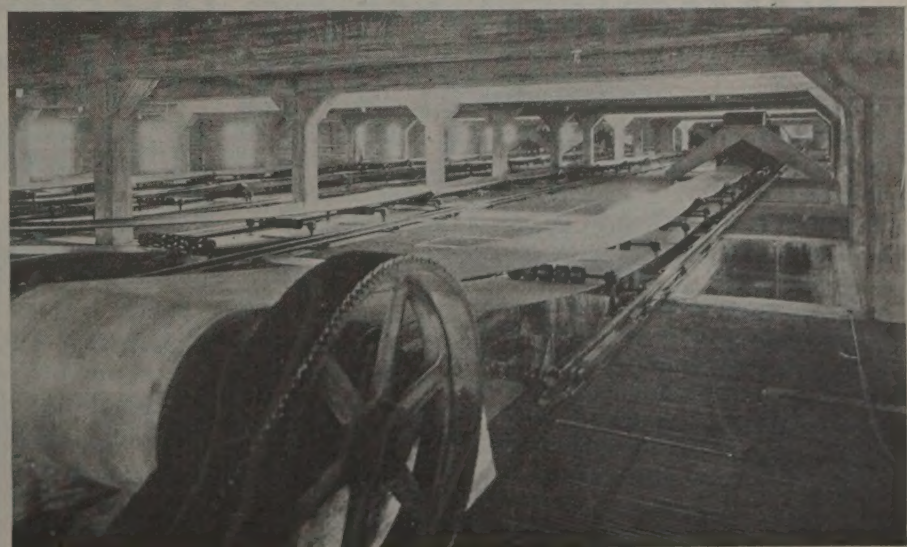
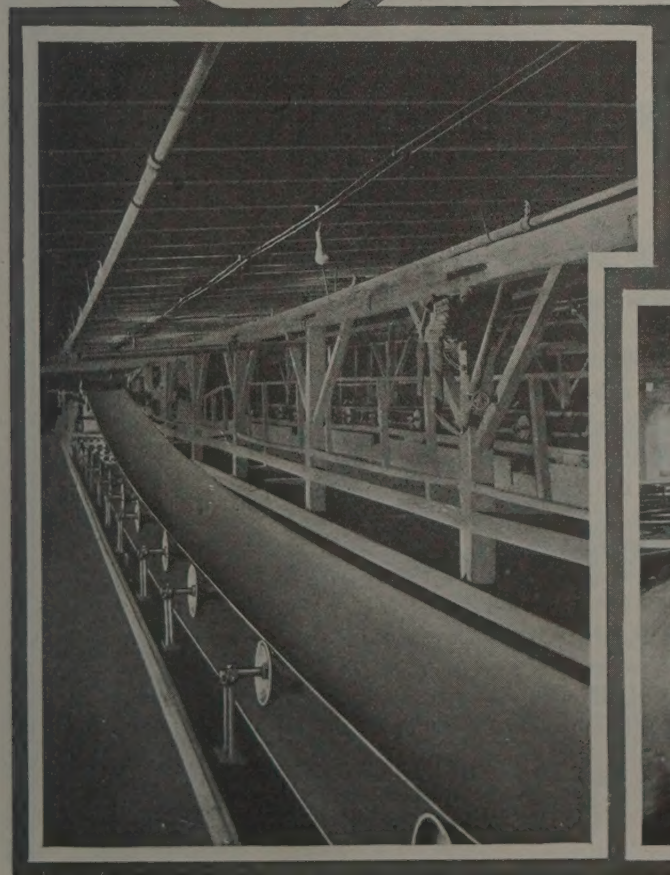
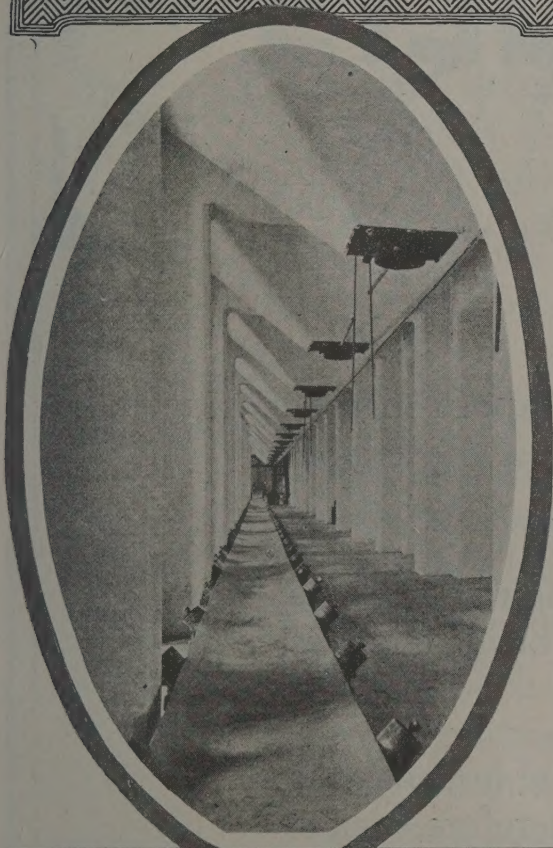
Grainster Conveyor Belts and Grainster Elevator Belts are made particularly for handling grain.

Every condition of service met in the modern grain elevator has been taken into consideration in their building.

They are the result of the combined experience of five leading rubber belt factories which built the first belts ever used for handling grain.

The seal of the world's largest rubber manufacturer on Grainster is your assurance of the utmost in grain belt value.

United States Rubber Company





The dynamic character of the Indianapolis market reaches to all receiving centers, making it the logical shipping point from central territory.

It attracts grain from the vast central arable plains and has proper connections with excellent billing facilities to all points, East, West, North, South.

The location and natural advantages of Indianapolis as a grain receiving and shipping center, therefore, makes it the best market in the country.

The following firms are devoted to your interests, all members of the

INDIANAPOLIS BOARD OF TRADE

BIG FOUR ELEVATOR CO., Merchandisers of Grain
 BINGHAM-HEWETT-SCHOLL CO., Grain Merchants
 BELT ELEVATOR & FEED CO., Receivers, Shippers
 BERT A. BOYD GRAIN CO., Grain Commission
 CLEVELAND GRAIN CO., Grain Commission
 WM. R. EVANS GRAIN CO., Brokers and Commission
 P. M. GALE GRAIN CO., Grain, Feed
 GOLDBERG GRAIN COMPANY, Consignments
 HEINMILLER GRAIN CO., Receivers and Shippers
 HAYWARD-RICH GRAIN CO., Commission, Brokerage
 HILL, LEW, Strictly Commission
 HOOSIER GRAIN CO., Consignments only

KENDRICK & SLOAN CO., Hay and Grain
 H. E. KINNEY GRAIN CO., Receivers and Shippers
 LAMSON BROS. & CO., Grain, Seeds
 E. LOWITZ & CO., Grain Commission
 McCARDLE-BLACK CO., Grain Merchants
 CARL D. MENZIE GRAIN & BROKERAGE CO., Brokers
 and Grain Commission
 MERCHANTS HAY & GRAIN CO., Hay, Grain, Feed
 SAWERS GRAIN CO., Consignments, Commission
 and Brokerage
 URMSTON GRAIN CO., Grain Commission
 FRANK A. WITT, Grain Commission and Brokerage

The Last Cost is the Real Cost—

PICK a belt known for the dependable regularity with which it does its work—week in, week out—over LONGER periods.

REXALL has the “making good” habit because it has been built up to a standard—as high a standard as could be set—and unceasing efforts have been and are directed toward raising that standard still higher.

Uniformity in manufacture, in processing and in the quality of materials and workmanship, have produced a uniformly high standard of performance and insured a uniformly low LAST cost—or REAL cost.

You can back REXALL with the satisfied feeling that you are putting your money not only on a CONSISTENT performer, but on one of the very best on record. For our mutual benefit, we want you to back it—and “back it strong.”

REXALL

DOUBLE — STITCHED
CONVEYOR and ELEVATOR

BELTING

Makes good BECAUSE it's made good

IMPERIAL BELTING COMPANY

Factory and General Offices: CHICAGO

Branches: New York

Pittsburgh

Detroit

Salt Lake City



400,000 BUSHEL ELEVATOR

FOR

Postum Cereal Co.

Battle Creek, Mich.

MAKERS OF

POST TOASTIES, POSTUM CEREAL
AND GRAPENUTS

"There's A Reason"

Macdonald Engineering Company

53 W. Jackson Boulevard, Chicago

The **POLK SYSTEM**

All-Steel Machines
for all kinds of

CIRCULAR CONCRETE
CONSTRUCTION

We contract grain storages

POLK GENUNG POLK COMPANY

Great Northern Bldg.
Chicago

Fort Branch
Indiana

FOLWELL-AHLSSKOG CO.

Engineers and Contractors

*Designers and Builders
OF*

Grain Elevators, Flour Mills, Industrial Plants, and other
Engineering Works



PENNSYLVANIA RAILROAD COMPANY ELEVATOR, ERIE, PA.

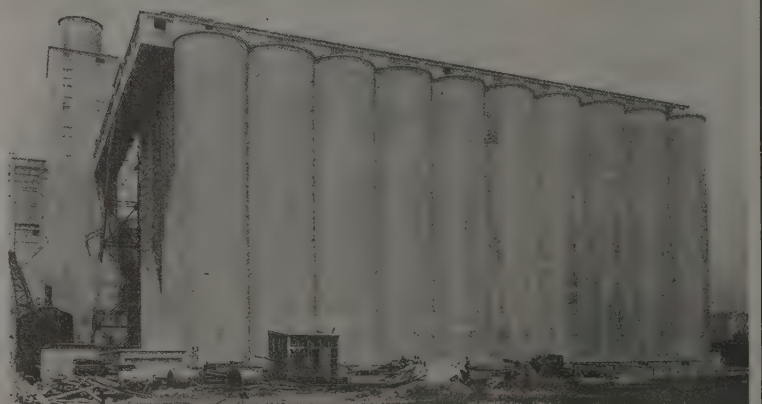
1,250,000-bushel Concrete Workinghouse and 25,000-bushel Marine
Tower. Reinforced Concrete. Latest improvements. Write us for
designs and estimates.

2051-6 McCORMICK BUILDING, CHICAGO

Reinforced Concrete Storage

Argo Illinois Plant
Corn Products Refining Company

*One of Forty Structures We Have
Built for this Company*



LEONARD CONSTRUCTION COMPANY
ENGINEERS and
CONSTRUCTORS

McCormick Bldg.
CHICAGO

6 Church Street
NEW YORK

We Invite Your Inquiries

TWO MILLION BUSHEL FIRE PROOF RECEIVING ELEVATOR

FOR

Washburn-Crosby Company
Minneapolis, Minn.



Write us for designs and estimates

We Design and Build Elevators, any type of construction, in any part of the World.

JAMES STEWART & CO., Inc.
GRAIN ELEVATOR DEPARTMENT

Fifteenth Floor of Westminster Building

CHICAGO, ILL.

W. R. SINKS, Manager

Chicago & Northwestern Railway Company's New
Reinforced Concrete Grain Elevator Being Built
at Council Bluffs, Iowa, for the Urdike
Grain Company of Omaha, Neb.



Our experience covers every branch of grain elevator
building work as well as any type or style of construc-
tion to meet requirements in any locality.

Designs and estimates promptly furnished.

Witherspoon-Englar Company

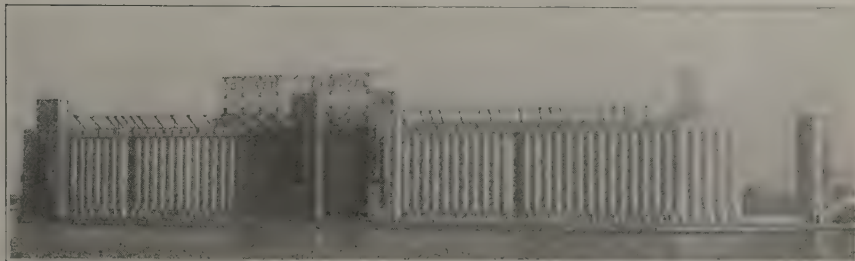
1244-1250 Monadnock Bldg.

CHICAGO, ILL.

MONARCH

Built Elevators
Assure You
Economical Design
First Class Work
Efficient Operation
and
Satisfaction
Let Us Submit
Designs and Prices

One of the Modern Houses Which Has Made a Record
for Rapid and Economical Handling
CONCRETE CENTRAL, BUFFALO, 4,500,000 Bu.



MONARCH ENGINEERING CO.

BUFFALO, N. Y.



The Barnett & Record Company

GENERAL CONTRACTORS

Designers and Builders of

Grain Elevators, Flour Mills and Heavy Structures

Reinforced Concrete and Steel Ore Dock con-
structed at Superior, Wisconsin, for the Allouez
Bay Dock Company. Entirely Fireproof.

Write for Designs and Estimates

OFFICES:

Minneapolis, Minn.

Duluth, Minn.

Fort William, Ontario



Canadian Government Railway's Elevator and Gallery System, St. John, New Brunswick.

Recently Completed

Capacity 500,000 Bushels

Designing and Consulting Engineers for Entire Work

JOHN S. METCALF CO., Limited

GRAIN ELEVATOR ENGINEERS

54 St. Francois Xavier Street, Montreal, Canada

125 Strand, London, W. C. 2, England

395 Collins Street, Melbourne, Australia

108 S. La Salle Street, Chicago, Ill

BALLINGER & McALLISTER

CONTRACTORS - DESIGNERS

Grain Elevators

Ear-Corn Plants

COMPLETE

Unity Bldg.

Bloomington, Ill.

L. A. STINSON

CONSULTING ENGINEER

H. E. GODFREY, Civil Engineer

ELEVATORS, MILLS AND WAREHOUSES

COMPLETE

National Life Building

Chicago, Ill.

Grain Driers, General Overhauling and Improvements

BLAYLOCK & KNAPP
STEEL CONTRACTORS

Monadnock Block

CHICAGO, ILL.

*All classes of Steel and Iron Work designed, delivered
and erected complete.*

We furnished the steel and iron work for the following recently constructed grain elevators and mills: C. & N. W. Ry. Elevator, Council Bluffs; Kentucky Public Elevator, Louisville; American Milling Co., Peoria; Municipal Grain Elevator, Portland, Ore.; Rosenbaum Bros.' Feed Mills, Chicago, etc.

WALLS, BINS and GRAIN ELEVATORS

By MILO S. KETCHUM

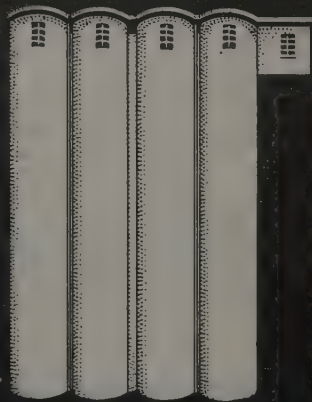
Second Edition. 556 pp., \$5.00

Design and construction are covered completely in this book. The new edition brings it up to the minute with fresh data, new cuts, and a modern treatment throughout. Over 150 pages were added to the old edition. The new chapters on "Reinforced Concrete" and "Methods of Construction and Cost of Retaining Walls" are especially valuable. It is the standard work on stresses due to granular materials.

MITCHELL BROS. PUBLISHING CO., 431 So. Dearborn St., Chicago, Ill.

**CONCRETE
ELEVATORS
and MILL
BUILDINGS**

DEVERELL, SPENCER & CO.
GARRETT BUILDING
BALTIMORE, MARYLAND



OUR 1919 RECORD



Kansas City Southern Ry. Terminal
Elevator

We have taken over 100 contracts. We have completed most of them, and we will add 100 to our customers list. Our services are available to you.

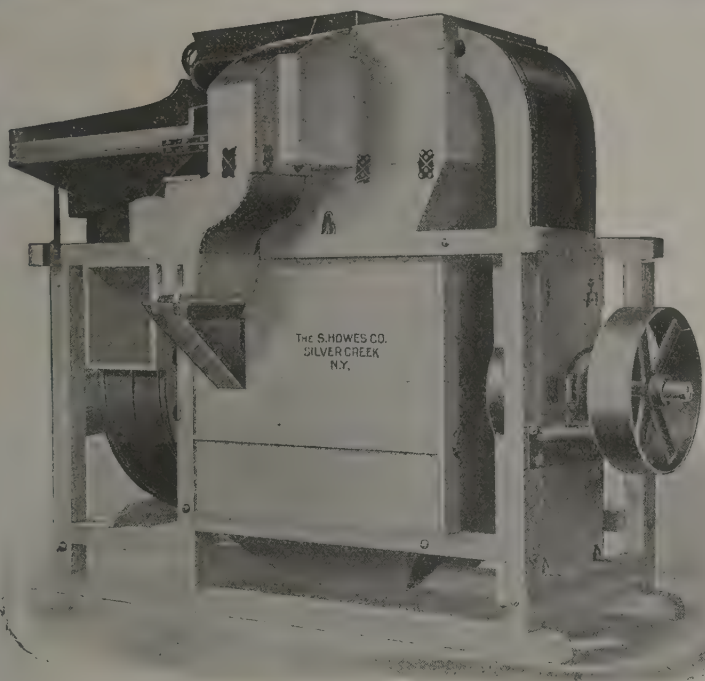
*Call, wire or write
and we will be there.*

**Grain Elevators, Mills, Coal
Pockets**

Burrell Engineering & Construction Co.

WEBSTER BUILDING

CHICAGO, ILL.



"Eureka"
Oat Clipper

with Ball Bearings

Ask someone who owns one

The thing the owner of a "Eureka" admires most in his machine is its Constancy. He knows that he can always depend upon it to do satisfactory cleaning. It gives him Constancy in performance, and he gives it back Constancy in friendship. Thus do the manufacturer's sales grow by one owner recommending the "Eureka" to another.

EUREKA OAT CLIPPERS

have distinguished themselves over a long period of years in the hands of men who insist that things must move with clock-like regularity, and who judge equipment by its ability to do good work 365 days a year.

S. HOWES COMPANY, Inc.
SILVER CREEK, N. Y.

REPRESENTATIVES

William Watson, Room 415, 111 West Jackson Blvd., Chicago, Ill.
Geo. S. Boss, Osborne House, Rochester, N. Y.
J. E. Gambrill, 749 E. Church St., Marion, Ohio.
W. M. Mentz, General Delivery, Sinks Grove, W. Va.
J. Q. Smythe, 3951 Broadway, Indianapolis, Ind.
F. E. Dorsey, Savoy Hotel, Kansas City, Mo.

BALL BEARING ROTARY DRIERS



Cross Section Type A Rotary Drier

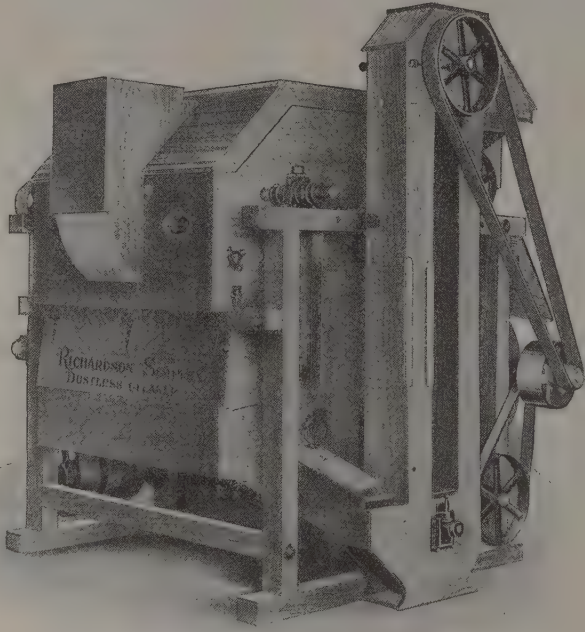
The illustration appearing herewith is a cross section of an Ellis Ball Bearing Type A Rotary Drier. It is built to dry meal, flour, feeds, etc. When operating the material to be dried is fed into the high end of the machine and after being repeatedly picked up by the lifter flights and dropped over the hot steam pipes is discharged from the low end of the drier. The steam or vapor as it is liberated from the material escapes from between the flights.

Catalog on request.

If interested in grain driers of the better kind—built to a standard and not to a price—it will be worth your while to write for our catalog No. 26.

THE ELLIS DRIER COMPANY, Chicago, U. S. A.

THE RICHARDSON SIMPLEX



THE DUSTLESS CLEANER

Have You Ever Noticed

how dirty some elevator work floors are—some cleaner throwing out clouds of dust, causing personal discomfort and possibilities of advanced insurance rates?

Those Houses Do Not Have the SIMPLEX CLEANER

Easy to Operate—Large Capacity—Small Floor Space

Wheatland, Wyo., April 9, 1919.

Richardson Grain Separator Co.,
Minneapolis, Minn.

Gentlemen:

We are so well satisfied with the work of the No. 2-60- Richardson Simplex Grain Separator we bought from you in January for our elevator at Wheatland, Wyoming, that you may book our order for a No. 3-70- Simplex to be shipped to us at Slater, Wyoming about July 1st, 1919.

The workmanship, material used in their construction and the class of work they do put the Richardson Simplex Cleaner in a class by themselves.

Had we had our elevators equipped with these cleaners at the beginning of the season they would more than have paid for themselves the first year.

We certainly would advise any one intending to build an elevator to look over the Richardson Simplex Cleaners before placing an order for any other make, for they have the capacity and deliver the goods.

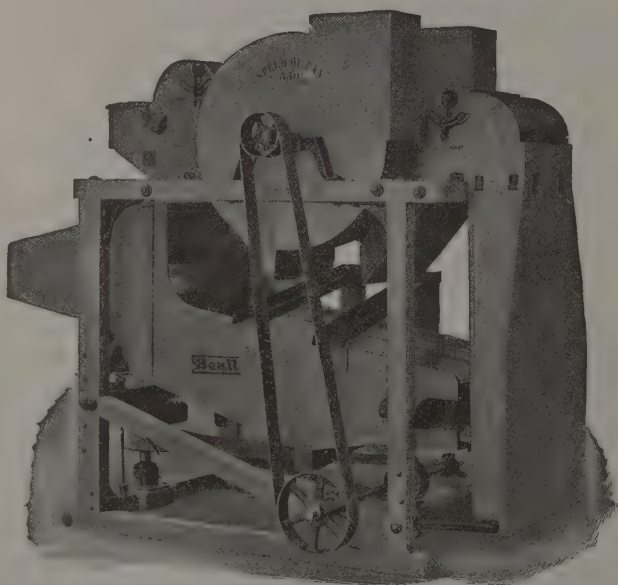
Yours truly,
Manning Elevator Co.,
By S. Manning, Mgr.

Write for full information

Richardson Grain Separator Co.
Minneapolis Winnipeg

BEALL Sends Seasons Greetings For 1920

Beall
THE MARK OF QUALITY



Built in ten sizes

Search the records and you'll find that

BEALL LEADS

in superior quality in Warehouse
and Elevator Separators

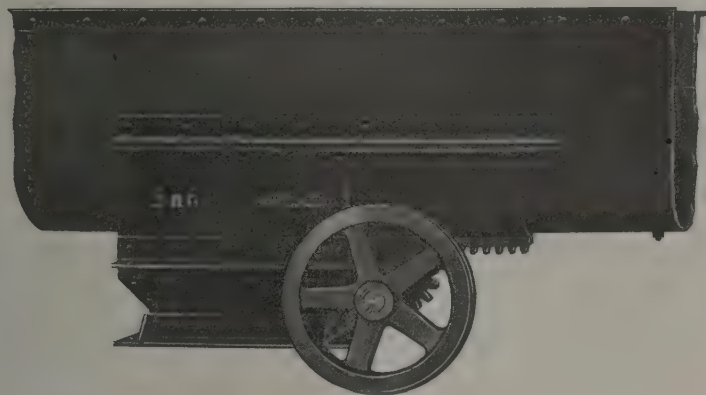
*Built to stand hard usage and
increase the efficiency of your
plant. Indorsed by grain elevator
operators everywhere.*

Send for illustrated catalog

The Beall Improvements Co., Inc.
Decatur - - - - Illinois

To the Grain Trade

We wish you a Merry Christmas and a Prosperous New Year and express the hope that the close of 1919 finds conditions that are a harbinger of success for the grain industry for 1920. Remember we are better equipped than ever to serve you in all lines of grain elevator and power transmission machinery.



Rack and Pinion Discharge Gates for Steel Conveyor Box.

Write for descriptive catalog.

Skillin & Richards Mfg. Co.

4515-4560 Cortland Street, Chicago, Ill.

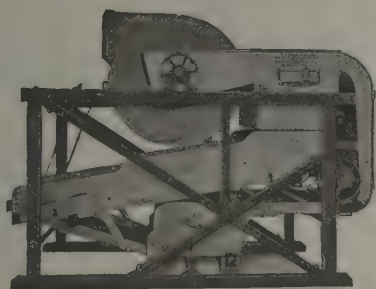


Standard Steel Plate Clutch and Pulley.

All grain elevator operators who have Skillin & Richards working equipments have a distinct advantage. They have the assurance of minimum power cost, repairs and up keep, and maximum service. Every machine manufactured by us is constructed of the very best material or workmanship procurable and will perform its allotted task without interruption for an indefinite period.



Standard Weight Screw Conveyor.



The U. S. Grain Cleaner



The Constant
Safety
Ball-Bearing
Man-Lift



The U. S. Corn Sheller

We Couldn't Make All the Machinery in the World So We Decided to Make the Best of It

Constant Machines Are Noted for Reliability, Simplicity and Durability and Are, in Short, the Best That Can Be Secured for the Money

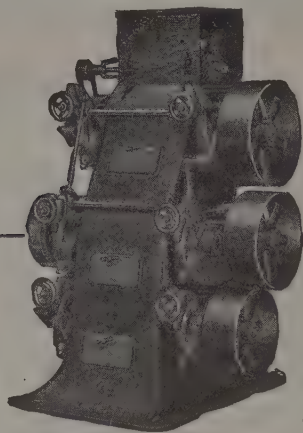
Let us know your needs for 1920. We can fill every want in the line of Grain Elevator Machinery

With Cordial Season's Greetings

B. S. CONSTANT MANUFACTURING CO.

BLOOMINGTON

ILLINOIS



You need this sturdy, capable, general purpose mill

For grinding feed, table corn meal, pearl meal, linseed, etc., you can use this mill with great profit. This mill is built by men who know milling conditions, for those who want the best in milling equipment.

N. & M. Co. Three Pair High Mill

It has the characteristic N. & M. Co. rugged strength combined with flexibility of operation necessary to handle widely different stocks. Will grind extremely fine, medium or coarse, just as you wish.

Solid one piece cast frame—doors for examining stock beneath each pair of rolls—Ansonia rolls with our easy running, long wearing, collar oiling bearings—one lever simultaneously spreads or closes all three pairs of rolls—any pair of rolls may be removed without disturbing the others—furnished with either belt or gear drive on slow side.

See book on Mills, No. 1290 for details.
If you haven't got it we will send it on request.

Everything
for the
Modern
Mill

Nordyke & Marmon Co.

INDIANAPOLIS, IND.

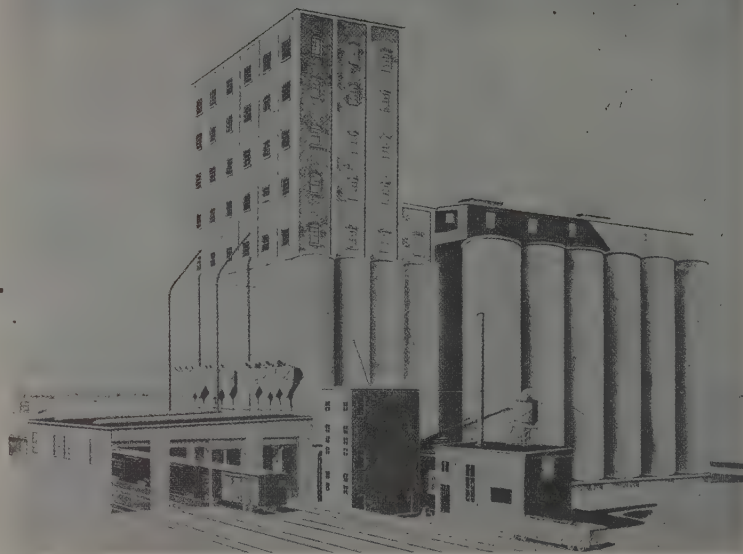
Established 1851

Ask for
Catalogs
on any
Equipment
you need

America's Leading Mill Builders



The Sign of Efficiency The Sign of Durability
MORSE DRIVES
Positive as Gears Flexible as a Belt
Longer Life



Transcona Elevator, Manitoba.

"Another Morse"

There are 41 Motors with Morse Drives, a Total of
1375 Horsepower, in the Transcona Plant

FIFTY country elevators out of 97 examined, were equipped with motors ranging from 10 to 50 horsepower.

COME TO US if you have belting difficulties with a higher cost and a lower output per unit power than your competitors.

MORSE DRIVES where you now have belts and gears will eliminate worry, attention, trouble, slippage and power loss. There is a Morse Silent Drive that will meet just your requirements. No matter how severe the service or how difficult the installation, Morse Silent Chain Drive installations have encountered the same problem and will show a good solution.

In these strenuous times early specifications of requirements are very desirable to insure prompt deliveries.

Morse Drives

Give greater output in a given time.
Give steadily, noiseless, clean, never failing.
Cost less to operate, 99% efficient.
Longer life, less to maintain, less depreciation.

Morse Engineering Service

Whenever you have any special problems with which you feel we can help you, please call our nearest office. Confer with our experts. A drive somewhere may need speeding up, or for special service in Dust, Gases, Steam, around acids, or increase power.

MORSE Drives insure against competition.

Let us have your problem.
You will be in no way obligated.

*Largest Manufacturers of Chain
Drives in the World*

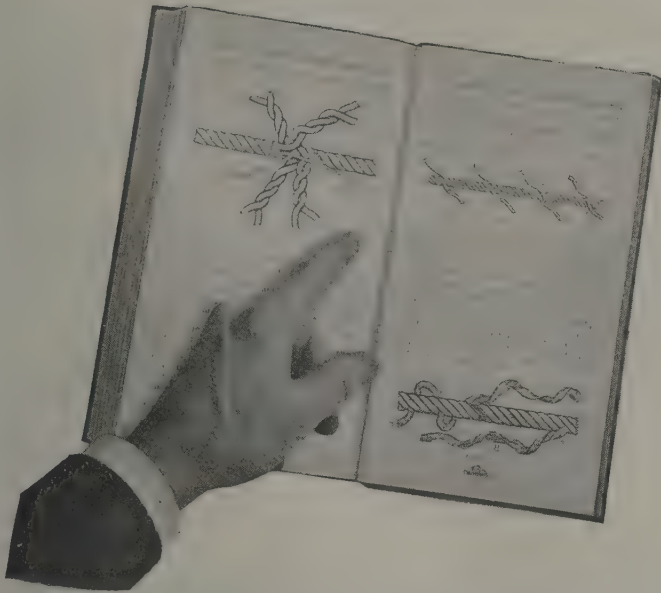
Morse Chain Co., Ithaca, N. Y.

ENGINEERING SERVICE OFFICES

BOSTON, Mass. 141 Milk Street
CHICAGO, Ill. Merchants L. & T. Bldg.
CLEVELAND, O. Engineers Bldg.
DETROIT, Mich. 1003 Woodward Ave.
GREENSBORO, N. C. 805 Ashboro St.
NEW YORK CITY ... 50 Church Street
PITTSBURGH, Pa. Westinghouse Bldg.
SAN FRANCISCO, Cal. Monadnock Bldg.
ATLANTA, Ga. ... Earl R. Scott, M.E.
Candler Bldg.

KANSAS CITY, MO., Morse Engineering Co.
R. A. Long Building.
MINNEAPOLIS, Minn., Strong-Scott Mfg. Co.
413 Third Street, S.
ST. LOUIS, Mo., Morse Engineering Co.
Chemical Building.
CANADA ... Jones & Glassco, Regis'd
Montreal, St. Nicholas Building.
Toronto, Bank of Hamilton.

WATERBURY ROPE Drives



The uniform diameter and weight of Waterbury Manila Transmission Rope, the quality of its selected fibre, and the skill with which it is laid, make it outlast other ropes in severe power transmission service.

Naturally the better the splice is made, the less chance for splice failure. How to splice a transmission rope properly is only one of the valuable bits of rope information in the Waterbury Rope Handbook. It holds 220 pages of rope data—all you need to know about every sort of rope.

Every rope buyer or user ought to have a copy handy. One will be mailed to you for the asking.

WATERBURY COMPANY
63 PARK ROW, NEW YORK

Chicago....1315-1321 W. Congress Street
San Francisco.....151-161 Main Street

Dallas, Texas.....A. T. Powell & Co.
New Orleans...1018 Maison Blanche Bldg.



2330-W



**POSITIVE
PROFIT
PROTECTION**

*A Simple
grip of the
handle prints
the weight.*

Fairbanks Type Registering Beam

Gives you authentic printed records of every load. Provides your customers with an exact duplicate. Adds to the feeling of confidence between you. Protects your profits. Increases your business. Can be put on any Fairbanks, Wagon, Stock or Auto-Truck Scale.

Fairbanks, Morse & Co.
MANUFACTURERS CHICAGO
Engines - Motors - Scales - Light Plants - Feed Grinders, etc.

Bauer
SCIENTIFIC

"Scientific" Motor Driven Attrition Mill; belt drive furnished if desired.

**A Mill We're Proud to Build,
—You're Proud to Own**

A Bauer "Scientific" Attrition Mill, from bolts to bed-plate, is correct in design, faultless in construction,—certain to give best results. There is no weak point in the Mill, but there are some sixteen desirable and exclusive points which we'd take pleasure in naming to you.

We're proud of the "Scientific" Mill. It's up to Bauer standards.

And there's every reason why you'll be proud of this machine in your Mill.

Have you the new Catalog No. 103?

THE BAUER BROS. CO.
517 Bauer Bldg. Springfield, Ohio, U. S. A.
We also make Single Disc Mills, Centrifugal Bolting Reels, Corn Crackers, Breakers, etc.

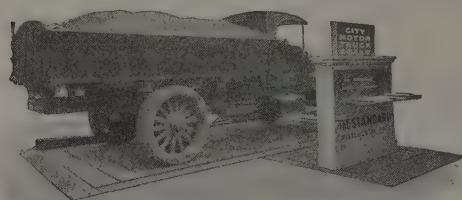
SCIENTIFIC

An illustration of the INVINCIBLE Cyclone constructed for installation out-of-doors. The hood protects against rain and snow. Heavy galvanized steel used throughout.



Looks similar, but is actually different and better than other makes.

Invincible Grain Cleaner Company
Silver Creek, N. Y.



"The Standard" Scales

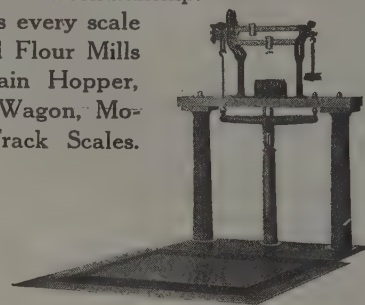
FOR GRAIN ELEVATORS

Accurate Dependable Durable

"The Standard" Scales are guaranteed to be strictly high grade throughout, both in material and workmanship.

"The Standard" line includes every scale used in Grain Elevators and Flour Mills—Portables, Dormants, Grain Hopper, Wagon, Automatic, Dump, Wagon, Motor Truck and Railroad Track Scales.

Send today for our latest Scale Catalogue No. 73. Mention the type of scale in which you are interested and we shall be pleased to give you full information regarding prices, etc.



The Standard Scale & Supply Company
1631 Liberty Avenue, PITTSBURGH, PA.

NEW YORK, 145 Chambers Street
PHILADELPHIA, 523 Arch Street

CLEVELAND, 1547 Columbus Road
CHICAGO, 163 North May Street
BALTIMORE, 409 North Gay Street

The Corn Exchange National Bank

OF CHICAGO

Capital - - \$ 5,000,000.00

Surplus and Profits 10,000,000.00

OFFICERS

ERNEST A. HAMILL, President
CHAS. L. HUTCHINSON, Vice-Pres.
D. A. MOULTON, Vice-President
OWEN T. REEVES, JR., Vice-President
J. EDWARD MAASS, Vice-President
NORMAN J. FORD, Vice-President

JAMES G. WAKEFIELD, Cashier
LEWIS E. GARY, Asst. Cashier
EDWARD F. SCHOENECK, Asst. Cashier
JAMES A. WALKER, Asst. Cashier
CHARLES NOVAK, Asst. Cashier
JOSEPH C. ROVENSKY, Asst. Cashier

DIRECTORS

CHARLES H. WACKER
MARTIN A. RYERSON
ROBERT J. THORNE
EDWARD B. BUTLER
CHARLES H. HULBURD
BENJAMIN CARPENTER
HENRY P. CROWELL
CHAUNCEY B. BORLAND

CLYDE M. CARR
J. HARRY SELZ
EDWARD A. SHEDD
WATSON F. BLAIR
ERNEST A. HAMILL
CHARLES L. HUTCHINSON
EDMUND D. HULBERT

UNITED STATES DEPOSITARY

Foreign Exchange

Cable Transfers

Letters of Credit

Accounts of grain elevator operators and commission men
throughout the country respectfully solicited

Stern, Costly Facts

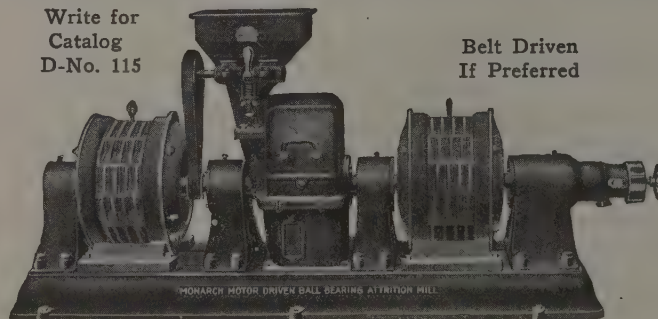
Are the little daily losses in time and lubricant; the repair stops and expenses; the trouble caused by uneven grinding and the maintenance bills of a babbitt bearing, out-of-date feed grinder.

We ask, as a plain business proposition, which would pay you better, to ignore these losses, which, in the aggregate, soon amount to a substantial sum of real money, or to protect yourself permanently from such loss by investing in

The Monarch Ball Bearing Attrition Mill

Write for
Catalog
D-No. 115

Belt Driven
If Preferred



The Monarch is never careless, heedless or inattentive to business. Ball bearings practically eliminate friction, institute perfect and permanent tram, chase away power and lubricant losses, and inaugurate and continually safeguard uniform grinding.

The mission of this mill is to protect your profits; not by the grace of luck, but by inbuilt, original features which never cease to exist.

SPROUT, WALDRON & CO.

Main Office and Works, MUNCY, PA. P. O. Box 320

Chicago Office: No. 9 South Clinton Street

Machine-Molded Gears

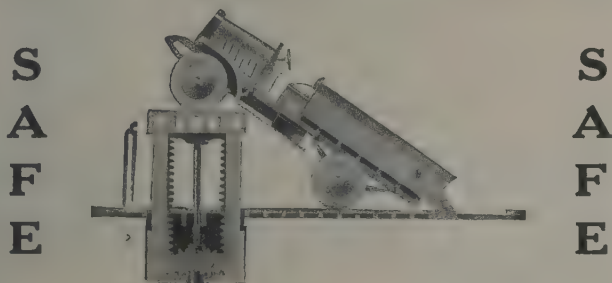


We manufacture a very complete line of Gears 1-inch pitch and larger; they are noted for their strength, durability, true rims, accurate pitch and smooth running. Hence they are highly efficient and economical.

H. W. CALDWELL & SON CO., Western Avenue, 17th to 18th Sts. **Chicago**

NEW YORK, Fulton Bldg., Hudson Terminal, 50 Church Street.
DALLAS, TEXAS, 711 Main Street.

THE ONLY DUMP MADE On Sound Mechanical Principles



TRAPP DUMPS

Yours is ready for you.

Write about it.

All kinds of elevator machinery.

TRAPP-GOHR-DONOVAN CO.

1125 North 22nd St.

Omaha, Neb.

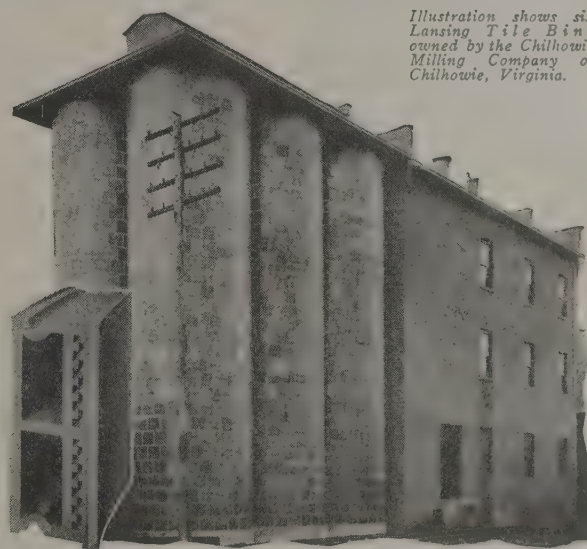


Illustration shows six Lansing Tile Bins owned by the Chilhowie Milling Company of Chilhowie, Virginia.

Reduce Grain Fire Hazards

Grain stored in Preston-Lansing Tile Grain Bins is **safe**. Vitrified tile can not burn—it is fire-proof, rat-proof and moisture proof.

Preston-Lansing Tile Grain Bins

are indestructible! The tile blocks fit together in "ship-lap" formation, bracing tile against tile. The deep grooves at top and bottom of each block provide an extra thick layer of cement. This arrangement, with the special twisted steel reinforcement between each row of

blocks, withstands any strain from the weight of the grain or wind pressure. The first outlay is your only expense—year-in-year-out service makes Lansing Tile Bins cheapest in the long run. They last indefinitely without upkeep or repairs.

Write for our Catalog and Prices

J. M. Preston Company, Dept. 426, Lansing, Michigan

Reliance Construction Company

**Furnish Plans, Estimates and Build
COUNTRY GRAIN ELEVATORS**

Our long experience as a builder of elevators insures you an up-to-date house. Write today.

625 Board of Trade Building,

INDIANAPOLIS, IND.

Elwood's Grain Tables

Show the value of any number of bushels or pounds of **WHEAT, RYE, OATS, CORN OR BARLEY** at any given price from 10 cents to \$2.00 per bushel. One of the most useful books ever offered to millers. Indorsed by prominent millers and grain dealers. Bound in cloth, 200 pages. Mailed on receipt of price.

\$1.50

Mitchell Brothers Publishing Co., 431 S. Dearborn St., Chicago, Ill.

DOCKAGE TESTER

adopted by
U. S. GOVERNMENT

Present conditions demand accuracy in testing grain—your profits depend upon your tester. Don't take chances with experiments or guess.

EMERSON

is no experiment. It is men and officials who all times and under all

THE

NEW

KICKER

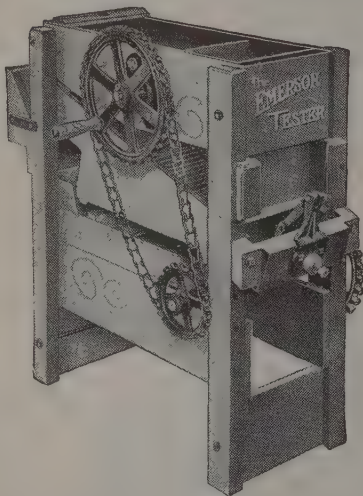
used by all grain must have accuracy at conditions.

10,000
KICKERS

are now in use—the Government uses over 100—Line, Independent and Farmers' Elevators all over find the Emerson dependable and a sure enough arbiter between seller and buyer on any dockage dispute.

Write for pamphlet and particulars.

Emerson Mfg. Co.
2821 Lyndale Avenue So.
Minneapolis, Minn.
Winnipeg, Can.



Can Be
Furnished
with Motor Drive

THE RECORDS

of the

Flour Mill and Grain Elevator
Mutual Insurance Companies

show that 80% of all fires in Mills or Elevators start in elevators. The installation of an automatic feeding device which will positively prevent an elevator choking from over-feeding and an automatic relief which will prevent an elevator choking from bin getting full or spout choking, will annually save millions of dollars in fire loss and add at least 50% to efficiency of any stand of grain elevators. These devices are perfected and are available for mill and elevator owners, are very inexpensive and absolutely practical. Full particulars will be furnished free of charge by this office, on request.

Mutual Fire Prevention Bureau
OXFORD, MICHIGAN



Let Us
Tell You
HOW

IT'S TIME to think about
installing a

Cyclone Dust Collector

You've never made a wiser, better or more profitable investment for your elevator business.—Write.

CYCLONE BLOW PIPE CO.

2542-52 Twenty-first Street, Chicago, Ill.

Complete new systems installed on modern plans and guaranteed. Old systems remodeled on modern lines on most economical plans. Supplementary systems added where present systems are outgrown. Defective systems corrected and put in proper working order.

Write to Kellogg

We Are Paying Top-o'-the-Market
Prices for

| | |
|---------|--------------|
| ALSIKE | RED CLOVER |
| ALFALFA | WHITE CLOVER |
| | SWEET CLOVER |

Send Us Samples

Whenever you're in the market—to buy or to sell—in carload lots or less—it will always pay you to
WRITE TO KELLOGG

Kellogg FIELD and GRASS Seed Co.
186-7 FLORIDA ST. MILWAUKEE, WIS.

LET OUR ENGINEER
SOLVE YOUR
DRYING PROBLEMS

The Toledo Grain Drier

Manufactured by

The J. D. Gerken Company

25-29 Ontario Street

Toledo, Ohio

GRAIN DRIERS

are essential to conservation of corn. No modern grain handling plant should be without one. Allow us to place before you plain, honest facts concerning driers and learn why the one pre-eminent is

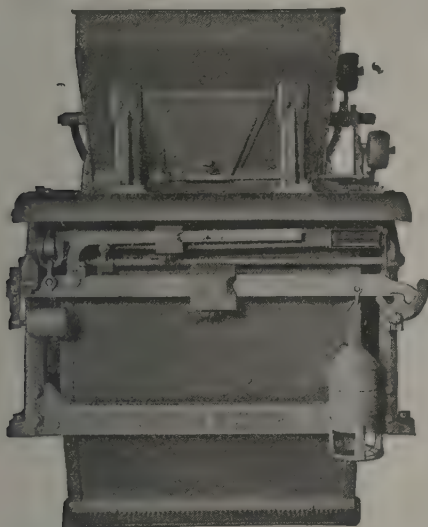
MORRIS

"The drier designed to ultimately cost less"

The Strong-Scott Manufacturing Co.

"Everything for every mill and elevator"

M NNEAPOLIS GREAT FALLS SPOKANE WINNIPEG, CAN



Every grain shipper must "maintain adequate weighing facilities," etc., according to Section 21 of the Pomerene Bill. Then why not install a

SONANDER Automatic Grain Scale

You will have to comply with the term "adequate" and surely want to insure payment of your railroad claims.

Write to your nearest office for booklet of accurate weighing of grain and the accuracy of the Sonander.

Howe Scale Co. of Illinois

409 Fourth St., St. Louis, Mo.
1510 Main St., Kansas City, Mo.

F. L. Rogles, Mgr.
W. C. Peak, Mgr.

Pacific Scale & Supply Co.
For Washington, Oregon and Idaho

46 Front St., Portland, Ore.
546 First Ave., So. Seattle, Wash.

Wm. Schweizerhof, Mgr.



HUMPHREY Service Belt Elevators

specified by the largest and best Engineering, Constructing and Mill Building Companies in the World—WHY?

Because the HUMPHREY is the best—The original improved construction—The record of 30 years and more continuous day-in and day-out service. A record that no other elevator can meet within 15 years.

Greater Output In Less Time

because employees can do more work without a useless waste of energy.

Write for Bulletin A-5 and learn how the "Humphrey Endless Belt Route" means DOLLAR DIVIDENDS to you.

If not made by Humphrey Elevator Company it's not a "Humphrey"

HUMPHREY ELEVATOR CO. Sole Manufacturers
FARIBAULT, MINN.

Elevator Machinery and Supplies

FLOUR and FEED MILL MACHINERY STEAM and GAS ENGINES

PULLEYS, SHAFTING, GENERAL POWER TRANSMISSION
MACHINERY, ROLL GRINDING AND CORRUGATING

Largest Factory and Stock in Western Country

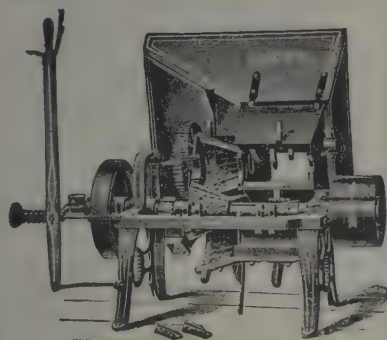
SEND FOR 450-PAGE CATALOG

GREAT WESTERN MFG. CO.

General Office and Factory
LEAVENWORTH, KAN.

Warehouse and Sales Room
1400-1402 West 12th St.
KANSAS CITY, MO.

Make Feed Grinding More Profitable!



Mill opens like this in six minutes.

Bowsher's "Combination" Mills do this

Because their large capacity, cone-shaped grinders and positive self ear feeders are properly designed to direct every ounce of power energy to the actual reduction of the grain.

Crush and Grind ear corn, husked or unhusked, alone or mixed with any kind of small grain in any desired proportion. Reduce the material to any fineness desired for feeding purposes.

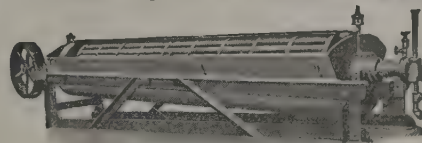
11 Sizes, 2 to 25 H.P.

Sold with or without Sacking Elevator.

The N. P. Bowsher Co., South Bend, Ind.

SEE THAT YOUR CONTRACT CALLS FOR

THE CUTLER MEAL DRYER



SOLD BY ALL
MILL
FURNISHERS

Not An
Experiment

All Metal Steam Dryer

IN SUCCESSFUL USE 40 YEARS DRYING

CORN MEAL, HOMINY, BREWERS' GRITS AND MEAL, AND ALL CEREAL
PRODUCTS. ALSO SAND, COAL DUST, GRAPHITE, CLAY, ORES, ETC.
Automatic in operation, requiring no attention

THE CUTLER CO., North Wilbraham, Mass.

CATALOG ON REQUEST

Seaport Brokerage Co.

WHOLESALE DISTRIBUTOR

Handles Flour—Grain—Hay— Mill Feed—Sweet Feed

Warehouse Storage, Capacity 100 car loads.
Buys outright and handles consignments.
Enjoys good trade in Virginia, North and
South Carolina.

LOCATED AT 30th ST. and C. & O. RY.
Newport News, Va.

Grain Commission Accountants

I HAVE perfected a standardized but simple and complete book-keeping system for the Grain Commission Business. I can give you one Cash Journal which will reduce your journalizing and posting from 50 to 75 percent or I can give you separate records of uniform size which can be kept by different accountants and can provide a separate record for from one to twenty bank accounts.

I can give you a ledger that will reduce your work and the time of posting fully 60 percent and give you the correct balance of each account after every posting.

I have solved your account-keeping problems just as I have done for many other lines of business during the last 30 years.

I want to show this simple, complete and satisfactory system to you and have one of my trained auditors install it for you just as soon as you are ready.

**The Edward A. Pratt
Audit Co.**

Edward A. Pratt
President.

CITY HALL SQUARE BLDG.

Also Peoria, Moline, Quincy

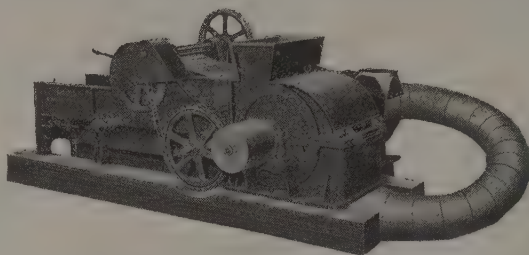
CHICAGO

Revolutionize Your Feed Plant

Gruendler Ball Bearing Grinders reduce cost of manufacturing all kinds of animal food—whether fine or coarse. Have "set the pace" for all other feed grinders. Every part is interchangeable. They are built in various sizes—up to 12 tons per hour, if desired.

Gruendler Grinders

Deliver an absolutely uniform ground product without adjustments. No particle of the ingredients will get by a Gruendler without being reduced to the proper size. Cost of maintenance is less than 1/16th of a cent per ton.



The cut above shows our latest combination hopper and automatic feed grinder, especially for use in feed plants manufacturing highest grade Alfalfa Meal, Dairy Food, Hog Feed or any other product to be ground to a uniform fineness. Send for illustrated circular giving specifications, prices and particulars.

A few of the materials handled by the Gruendler are Alfalfa Hay, Bagasse, Beans, Barley, Beef Scrap, Blood, Buckwheat, Hulls, Chaff, Cocoa Shells, Cottonseed Oil Cake, Coffee, Cereals, Corn Cobs, Corn Stalks, Clover Hay, Corn-Bran, Fish Meal, Kaffir Corn, Maize, Black Oats, Wheat Bran, Screenings, Snapped Corn in the Shuck, Peanut Shells, Velvet Beans, Soy Beans and Middlings.

Durable-Economical

Let us prove our claims. There is a Gruendler waiting for you, on 30 to 60 days trial. Should it not make good—your money back. We have built over 200 complete feed grinding and mixing plants. There are more than 5,000 Gruendler mills in daily operation—all giving satisfaction.

GRUENDLER PATENT CRUSHER & PULVERIZER CO., 930 Main St., St. Louis, Mo.



The Only Non-poisonous Rat and Mouse Exterminator in the World

Millions are using it in all civilized countries. Fully guaranteed. Exclusive territories granted to responsible dealers or agents.

Price—15 cents per box, \$1.80 per doz., \$1.00 per lb. in bulk.

The Berg & Beard Mfg. Co., Inc., 100 Emerson Place, Brooklyn, N. Y.

**RID
OF
RATS**

DIRECT HEAT OR STEAM CONTINUOUS FLOW MADE IN ALL SIZES **Randolph Grain Driers** WIRE WRITE PHONE O. W. RANDOLPH CO. TOLEDO OHIO U.S.A.

UNIVERSAL GRAIN CODE

(and Mill Feed Supplement)

COMPILED FOR USE OF

GRAIN and MILLING TRADES

OF THE

United States and Canada

This Code meets the present day requirements of the grain and milling trades—is up-to-date in every respect and thoroughly covers the changes in methods and business that have come into use of late years.

The translation expressions and tabulated matter is a great improvement upon any public grain and milling code now in use, and is an assured factor in saving

telegraph tolls and misunderstandings in telegraphing.

The Universal Grain Code is being used by many hundreds of the most active firms in the country.

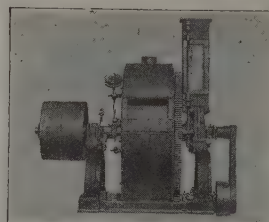
A list of Code Users is sent gratis with every copy of the Universal Grain Code, the names and addresses being published free of charge.

Send for a Copy Now. Price \$3.00.

MITCHELL BROTHERS PUBLISHING CO.

431 S. Dearborn Street

CHICAGO, ILL.



TRIUMPH BARLEY PEARLER

Triumph Pearlars are being used by this country's largest producers of pearled grain. They are automatic in every respect and produce a product which cannot be beaten.

We'll be glad to supply full information to those who desire it.

Several for Immediate Delivery

THE C. O. BARTLETT & SNOW CO.

Main Office: Cleveland, Ohio

MILLING KINKS

The latest book for grain elevator operators and millers. Just off the press and ready for delivery. A companion book to the Book of Wrinkles. Contains 169 illustrated devices assembled and classified for ready reference.

PRICE \$1.00 POSTPAID

Mitchell Bros. Publishing Co.

431 S. DEARBORN ST.

CHICAGO, ILL.



BUYING PAINT

Buying paint for the protection of metal surfaces from rust and wear is no longer a haphazard experiment. It is an important investment, worthy of serious contemplation. With the high cost of labor in mind, the "cost per gallon" of paint is not the deciding factor, but the paint last on the job!

DIXON'S

Silica-Graphite Paint

has won an enviable reputation for long service with satisfied users in all parts of the world.

Graphite is not affected by sunlight, heat or cold, acids or alkalis, and it has no equal in withstanding dampness.

Silica is equally impervious and is to graphite paint what copper is to gold in a chain or watchcase. It resists wear and anchors the film. To secure these results, specify DIXON'S SILICA-GRAPHITE PAINT.

Write for Booklet No. 17-B.

Made in Jersey City, N. J., by the
JOSEPH DIXON CRUCIBLE COMPANY
ESTABLISHED 1827

THE BOOK OF WRINKLES

NEEDED BY EVERY GRAIN ELEVATOR OPERATOR. Contains 171 ingenious and well described and illustrated Devices for Saving Time, Labor and Money in Elevators and Mills.

PRICE, \$1.25 POSTPAID

MITCHELL BROS. PUB. CO., 431 S. Dearborn St., Chicago

Transit Leaks

are unknown to the grain shippers who use

KENNEDY Car Liners

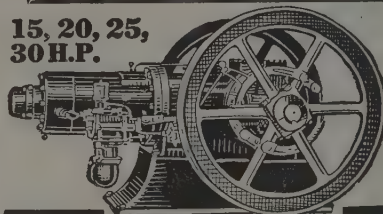
Enormous Increased Sales prove the Efficiency, Merit and Serviceability of these liners.

The Kennedy Car Liner

is the only device offered the grain shipper that makes a car Leak-Proof. Cheap—Modern—Profitable. Write now for particulars.

THE KENNEDY CAR LINER & BAG CO.
Shelbyville, Indiana, U. S. A.

15, 20, 25,
30 H.P.



Dependable Power From Cheapest Fuel

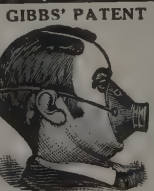
Here is an engine that will operate for long periods, using as fuel any of the cheaper grades of distillate, fuel or crude oils, assuring the most dependable power and show an immense saving in the power costs of Flour and Grist Mills, Grain Elevators, Cotton Gins, Oil Mills, Municipal Water and Electric Light Plants, where 15, 20, 25 or 30 H. P. is required.

It maintains lowest fuel consumption. As near completely automatically lubricated as possible. No water injected into combustion chamber, thereby maintaining low temperature and better lubrication of cylinder and piston. Perfect crank compression at all times. Quick starting. Sensitive governor, close, accurate speed regulation. Extra large bearing surfaces tend for long service and low maintenance cost. Simplicity of parts. Can be operated for long non-stop runs with minimum attention from operator.

FREE ENGINE BOOKLET
Write for it TODAY.
STOVER MFG. & ENGINE CO.
Lake Street, Freeport, Ill.

Also Mfrs. Stover Samson Windmills, Pump Jacks. Est. 1862. Free Catalog.

STOVER
FUEL-OIL ENGINE



GIBBS' PATENT DUST PROTECTOR

is invaluable to operators in every industry where dust is trouble some, affording perfect protection with perfect ventilation. Thoroughly tested for many years in every kind of dust.

GIBBS RESPIRATOR CO. "B"
284 Lake St. River Forest, Ill.

1874

1919

Lamson Bros. & Co.

*Grain Commission Merchants***SPECIAL SALESMEN****Geo. E. Booth, wheat; rye, barley****Harry J. Rogers, corn****Frank J. Dolan, oats**

An Appreciation

The approaching holiday season presents the opportunity for thanking our friends and patrons for the good will manifested towards us during the past year.

We extend to you most cordial greetings and best wishes for health, happiness and prosperity the coming year.

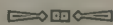
Countless County Shippers are now receiving our cash grain market service from our branch offices and correspondent offices, connected with Chicago by leased wires. This plan gives small town shippers the same service enjoyed by dealers in cities and terminal markets.

Let us enroll your name for this service

No. 6 Board of Trade**Chicago, Ill.**

Northern Grain & Warehouse Co.

Grain Commission Merchants

Home Office, Portland, Ore.**Chicago Office, 925 Postal Telegraph Bldg.****GEO. E. NEWMAN, Manager**

We solicit your business at any of the following offices:

New York, Chicago, Minneapolis,
Spokane, Tacoma, Seattle, Wash.,
San Francisco, Los Angeles, Calif.

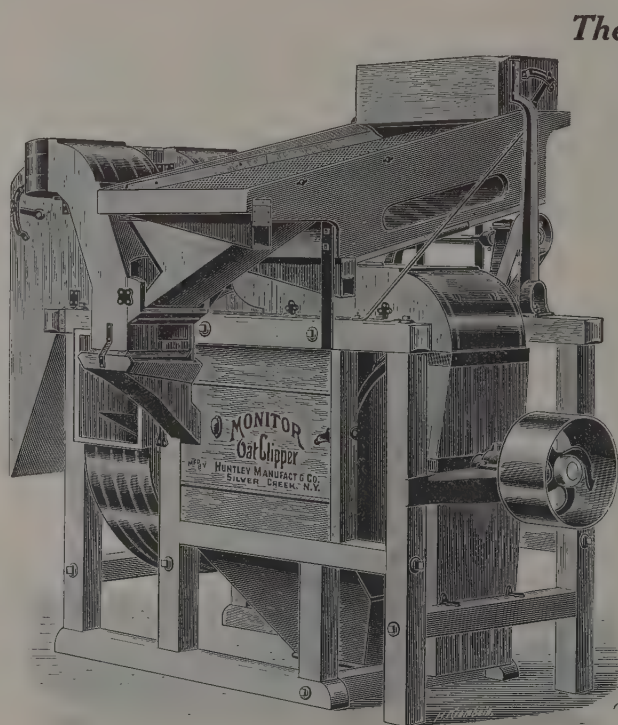
CONSOLIDATED ELEVATOR COMPANY

DULUTH, MINN.

Capacity 11,250,000 Bushels

Clipping Oats or Clipping Profits?

It depends on your Clipper. Some Clippers clip off profits when they are supposed to be clipping oats. The Oat Clipper which, in clipping the oats, increases the profits, is the machine to tie to.



The
Monitor
REGISTERED TRADE-MARK

OAT CLIPPER builds the profits of a grain business in an amazing manner.

Why? Because its percentage of loss through shrinkage is extremely small—its power requirements low and its cost of upkeep small.

It gives you all there is in the operation

The secret is in the perfect air separations and the Monitor design of clipping cylinder.

Better Be Sure Than Sorry—Get a Monitor

Canadian Factory

Huntley Mfg. Co., Ltd.
Tillsonburg, Ont.

Huntley Mfg. Co.
Silver Creek, N. Y.

A monthly journal devoted to the elevator and grain interests.

Official paper of the Grain Dealers' National Association and of the Illinois Grain Dealers' Association.

Established in 1882.



Published on the fifteenth of each month by Mitchell Bros. Publishing Co., 431 So. Dearborn St., Chicago, Ill.

Subscription price, \$1.00 per year.

English and Foreign subscriptions, \$1.75 per year.

Established in 1882.

VOL. XXXVIII

CHICAGO, ILLINOIS, DECEMBER 15, 1919

NO. 6

New Grain Storage at Head of Lake Superior

Duluth Increases its Grain Capacity to Take Care of Future Business

By S. J. SCHULTE

THROUGH the completion of its annex to Elevator "H", the capacity of the Consolidated Elevator Company's plants has been brought up to 10,850,000 bushels, divided as follows: Elevator "B" and Annex "E", wood plant, capacity 2,000,000 bushels; Elevator "D", fully fireproof, of concrete construction and quick handling, with a capacity of 2,400,000 bushels; Annex "G" to that plant, wood, capacity 1,600,000 bushels; "Elevator "E" and Annex "G", wood, capacity 2,600,000 bushels; Elevator "H", wood, capacity 1,000,000, and new Annex "I", of concrete construction, fireproof, capacity 1,250,000 bushels.

As the result of this latest extension, the storage capacity of the elevators at Duluth and Su-

perior is 84 feet, 3 inches wide by 250 feet, 5 inches long. It contains 48 circular and 33 interspace bins. It has a shipping capacity of 50,000 bushels from three spouts on the water side.

The new plant adjoins Elevator "H" and to afford connection with it, there is installed in Elevator "H" two 30-inch conveyor belts to discharge grain from that house to the annex, and one 30-inch belt conveyor and tripper to discharge grain from the annex to the bins of Elevator "H". The plant is equipped with three 1,200-bushel capacity hopper scales, with 1,200-bushel capacity garners over them. There are four bins on the dock side of 11,000 bushels' capacity, each equipped with boat loading spouts.

by the Globe Elevator Company at Duluth, is next to the Great Northern Elevator "S" at Superior, the largest at the Head of the Lakes. It is of tile and concrete and steel construction, and has a storage capacity of 4,000,000 bushels, of which 600,000 bushels is in the working house and 3,400,000 bushels in the annex. The contract for its construction was carried through by the Barnett & Record Company and C. F. Raglan.

The plant has 172 concrete bins and they are so advantageously located as to afford a maximum convenience in the receiving and handling of grain. The receiving capacity of the elevator is 100 cars in 10 hours, and its shipping capacity 100,000 bushels an hour. The plant has a cleaning capacity of



VIEW OF THE WATERFRONT AT DULUTH, MINN., SHOWING ALL THE GRAIN ELEVATORS AT THAT PORT

perior has been brought up to 36,325,000 bushels, operated by the following companies: Consolidated, Globe and Capitol at Duluth, and the Great Northern, Cargill, Globe, Itasca and Spencer Kellogg & Sons at Superior. The Duluth-Superior Milling Company has also a storage capacity of 600,000 bushels available at its Superior plant. The illustration presented herewith is interesting in that it shows the complete battery of elevators owned by the three companies operating at Duluth.

The Consolidated Elevator Company's newest annex will rank as one of the most modern and fastest handling of its kind at the Head of the Lakes. It is of reinforced concrete construction,

This annex is equipped with three 75-horsepower Westinghouse Electric Motors for operating the shipping legs; two 20-horsepower motors serving the conveyor belts; two 20 and one 15-horsepower motor serving the basement belts and one 5-horsepower motor serving the short belt in the cupola. The contract for the plant was carried through by the Barnett & Record Company and the outlay involved was \$250,000.

The Consolidated Elevator Company was incorporated in 1894 with a capitalization of \$1,500,000. H. A. Starkey is the president, and G. H. Spencer vice-president and secretary of the company.

The Peavey Duluth Terminal Elevator, operated

11,000 bushels an hour, with 19 wheat cleaners and six flax mills. Its drying capacity is 600 bushels an hour, a Hess No. 6 Dryer being used.

Steam power is used, a double compound steam engine with condenser of 1,500 horsepower being in commission. Two General Electric Motors are used for operating the Hess Dryer, one of 25 and the other of 50-horsepower, and lighting is by electricity. In the drive 7,600 feet of rope is used, 4,000 feet being 2-inch; 2,600 feet 1¾-inch, and 1,000 feet, 1½-inch. Twelve belt conveyors are in service, eight to and from the annex and four from the cars to the legs. Their approximate length is 5,800 feet. The plant is equipped with steam show-

els for unloading and an elaborate spouting system is used in loading boats. Eleven scales, including automatic and the Fairbanks-Morse are in service.

All kinds of grains and screenings are handled and the ability of the plant to meet emergencies is regarded as illustrated in the fact that 11,000,000 bushels of grain were handled during the 1918 season.

The Globe Elevator Company was organized in 1894. The officers of the company are: F. B. Wells, president; F. T. Heffelfinger, vice-president; A. L. Searle, vice-president and general manager; E. N. Bradley, secretary, and C. F. Deaver, treasurer.

The Capitol Elevator Company operates a battery of five concrete elevators at Duluth with a rated capacity of 5,000,000 bushels, the last one having been completed in 1918. They are modern in every particular. The officers of the company are J. F. McCarthy, president; T. F. McCarthy, secretary, and J. S. Graves, manager.

The elevator companies at Duluth have experienced a dull grain handling season owing to the decreased production of spring wheat in the Northwest and the small tonnage of it going forward for export is a result of urgent bidding on the part of the Minneapolis and other interior mills for that grain for mixing with winter wheat in flour production. Under normal conditions of marketing and the relinquishment of control of the trade by the United States Grain Corporation, operators are looking forward to an active season in 1920.

How nearly the complete capacity of the elevators at this point has been approached in past seasons is shown in figures compiled by the trade here. In 1913, 30,000,000 bushels of grain were stored in the elevators here, which then had a capacity of 32,000,000 bushels. In 1914, nearly 24,000,000 bushels of grain were housed in the plants at the Head of the Lakes.

THE PROFITS FROM CLEANING GRAIN

BY GEORGE J. NOTH

Conditions of course are not alike through all this Northwest territory, but in general it is quite possible to extend the same remedy to all dockage problems. In the first place many of the country elevator companies in this country have to ship their grain to the terminal elevator without cleaning it. Accordingly they must not only pay the freight on the dockage but also lose at the terminal elevator as well; for the terminal elevator claims it against the original shipper as dockage, the same as the original shipper has claimed it against the producer. In that way, to sum it all up, the terminal elevator company gets the dockage free.

Now if this same country elevator company would use a good cleaner to clean the grain and would install an attrition mill to grind up the dockage, disintegrating the germ, etc., and by so doing mix this ground-up stock with other feeds, it would promptly raise the value of the protein in other feeds above the normal. Take for instance in the state of Minnesota: I understand they have some 37 different kinds of four seeds, all found in the Northwestern fields. These have been branded as dockage by the Agricultural Department at Washington, D. C. These seeds are not really injurious to the animal but come in as seeds not under the name of saleable grain on the open market, or in other words, in any one case where these seeds are found it positively lowers the value of the grain in question in dollars and cents.

If I am not mistaken, in the state of Wisconsin and even in the state of Iowa, the percentage of such seeds is even greater. There are three different grains that can be cleaned and the relative value raised by running same over a cleaner: Namely, barley, wheat and flax. In fact there could very naturally be added oats and corn. Now the principal one of these, due to this section being more or less of wheat country, is naturally wheat. Wheat has a great tendency towards catching a certain amount of dirt and that will give it a smutty look. The brighter wheat is, the more saleable it is and the better price can be obtained.

The wheat that is free from foul seeds is of course the one that always grades the highest. At the same time a good No. 2 grade given a thorough cleaning and air aspiration oftentimes will come up to the weight of a No. 1 grade. In fact I have had this same experience in No. 3 and No. 4 grade wheat, getting a grade better almost every time it is passed through a real good, high-class cleaner.

Then again a grain cleaner is the best mixer of grain of anything on the market, as grain run over a cleaner gives it that mix which is not noticeable to the eye, even fooling some of the best men in the grain trade. It is very common to take, for instance, a certain percentage of No. 1 wheat and a certain percentage of No. 2 wheat and a certain percentage of No. 3 wheat, run them all together into the cleaner at the same time, give them a thorough cleaning, and even though the No. 3 wheat may be in the majority, yet you will come out with a No. 2 grade on the whole business.

The most essential feature, however, is the dockage question and that alone stands out as the most important feature, so far as cleaners are concerned, to grain elevators all over the country. The small elevator owner always loses. For instance, by illustration of a few figures: One hundred bushels of wheat has about 400 pounds of dockage. The farmer is docked for this. He loses it to the elevator company; the company ships same without cleaning; the freight is, say 6 cents per 100 pounds; the terminal elevator docks the country elevator man for the 400 pounds on the wheat and the country elevator company will pay him possibly 24 cents, or the freight, besides allowing him the dockage.

Now this proposition is a very long story. I never could understand why elevator companies would put up elevators, investing a lot of money, and still try to save on possibly an investment of \$500 or \$1,000 for a good cleaner, when that cleaner is the heart of the plant. If they would clean all their grain as received from the farmer before shipping it to the terminal elevator they would save all this dockage; would save freight on that dockage and would be able to turn that dockage, by grinding it over an attrition mill, into an essential, profitable, saleable commodity.

No elevator, no matter how small, should be without a real, up-to-date grain cleaner. Such cleaner should be of large enough size to clean the grain as it is unloaded from the wagons. Each of such cleaners should have strong first and second aspiration. They should be spouted to dust collectors in order that the lighter stock will be separated from the air through these dust collectors so as to grind that up with the dockage afterwards over an attrition mill. Such separators should be equipped with a series of sieves, namely for barley, oats, corn, wheat and possibly also flax, although the standard receiving separator does not make a good flax cleaner.

A NEW CANADIAN HULLESS OAT

The Department of Agriculture of Canada has been experimenting for some time and has finally produced a new hullless oat and small quantities are being distributed in Canada for seed purposes.

The full name of the variety is Liberty, Ottawa 480. It is derived from a cross made in 1903 between the well-known variety, Swedish Select, and the hullless oat from China. The new variety is decidedly superior to the old, Chinese sort. Threshing out free from hull, this type of oat furnishes a concentrated product of extremely high value which has only to be ground in order to make most excellent feed especially for young chickens. When carefully enough cleaned for use as human food, it makes meal of surprisingly fine quality. The Liberty oat has very good field characters, being rather early in ripening and having reasonably stiff straw. The yield (so far as kernel is concerned) is equal to about seven-eighths of that of Panner oats. Farmers who are interested in the raising of hogs and chickens are strongly advised to give this new oat a trial. It has already proven extremely satisfactory in some districts.

CONFIRMATIONS

Every year arbitration committees of state and national associations have urged greater care in the confirmation of sale or purchase of grain. For years a uniform confirmation blank has been under consideration and much study has been put on the subject. During the past year about 250 blanks were collected from different firms and a committee of three men prepared from them a confirmation blank which has found general favor among terminal market operators.

The official form, adopted by the National Association, however, is the old confirmation blank, modified in slight measure at the recent meeting in St. Louis. Every dealer is urged to use this form except where a special contract makes another necessary. Ninety per cent of the grain business of the country is conducted on terms by which this form could be used without change.

Official Form—Grain Dealers National Association

CONFIRMATION

NOTICE—If confirmation as below stated is not correct, wire us on receipt of this. (Place) (Date)

Dear Sir:—

We confirm { purchase of } you, as per our { sale to }
 { letter—wire } of today, of { cars }
 { conversation—phone } { bushels }
 of { delivery } at cents
 { shipment }
 a bushel delivered net
 weights and inspection guaranteed by { buyer }
 { seller }
 Same to be shipped and billed as follows:
 Notify
 and routed via for delivery by

It is expressly understood that the grain named within is to be shipped as per terms of contract and that this transaction is to be governed by the (Trade Rules of the Grain Dealers National Association—Rules and Regulations of the Board of Trade and its directors) in force at the time of making this confirmation.

Seller to pay the customary charges for weighing and inspection, if weighed and inspected where such charge is made.

Yours very truly,

Same to be shipped and billed as follows:
 Notify
 and routed via for delivery by

KANSAS RETURNS TO NORMAL BASIS

The Kansas State Board of Agriculture issued on December 4, its report on the acreage and condition of wheat sown this fall for the harvest of 1920.

It says: The area sown to winter wheat this fall, as reported by correspondents, is 8,951,834 acres. This exceeds by 1,232,500 acres the average of the five-year pre-war period (1910-1914), but is 2,658,600 acres or 23 per cent less than the record area of 11,610,445 acres sown for the crop of 1919.

A disposition to return to a normal acreage in wheat and a better balanced crop system is apparent. Every county of importance in wheat production has less land in wheat than a year ago. In the Southeastern section of the state (the soft wheat district) 25 counties report reductions of from 30 to 60 per cent; the reductions by counties throughout the great wheat belt of central Kansas run from 10 to 35 per cent; while the Western third shows reductions of from 5 to 20 per cent, with the exception of nine counties with small wheat acreages which report increases.

The immediate causes of the reduction in acreage most often mentioned by correspondents are: In the Eastern third of the state, dry weather, which delayed and made difficult the preparation of the seed bed; in the Western third, the scarcity and high cost of labor; while in the Central third both reasons are frequently assigned.

The average condition of the growing crop for the state is 79.1 per cent, 100 representing a good

stand and an average condition. This is 16.9 per cent lower than the condition reported at the same period in 1918, but 9.1 per cent higher than that reported in 1917.

Seeding was practically completed in all parts of the state by the date upon which reports were made out by correspondents, November 22.

Except in the Western third of the state the crop has afforded little pasture, owing to late seeding and slow growth, both attributable to dry weather in the early fall.

During the last week in November, and preceding the recent low temperatures, the crop received the benefit of an ample covering of snow which will furnish both protection and needed moisture.

THIS IS OF INTEREST TO YOU

In an address before the National Association of Commissioners of Agriculture at Chicago last month, David F. Houston, Secretary of Agriculture, voiced the unmistakable policy of the Government in respect to co-operative societies. He said on this subject:

Particularly must the Federal and state agencies omit nothing to promote helpful farmers' co-operative associations. Already within a generation many such bodies have developed and expanded rapidly. It is estimated that such associations in this country now market annually approximately \$1,500,000,000 worth of commodities. They are of very diverse forms and size. For the most part, where they have been successful, they have centered their activities on some one product or related products in a given area. The indications are that with the continued success of these enterprises and with the proper educational effort and direction they will develop even more rapidly in the future. Through bulletins, news articles, and lectures, the Department of Agriculture has endeavored to stimulate these efforts. It has furnished suggestions for state legislation governing their organization and, in co-operation with 23 states, it has employed trained specialists to advise extension workers, including county agents, with reference to marketing and organization problems.

As I have said, the rational program would seem to be to expand these activities, which have clearly demonstrated their value, to follow the scent, as it were, and to further develop the machinery through which increased assistance may be furnished. There should be in every state one or more trained market specialists of the Department of Agriculture, working in co-operation with the proper state authority, to stimulate co-operative enterprises and to aid farmers in their marketing work by helpful suggestions as to plans and methods. These experts could very effectively aid the extension workers. County agents generally have the benefit of assistance of specialists in many other lines, but at present they have not the requisite assistance in lines of distribution. They can not be expected to be expert in all agricultural matters or to be omniscient. The Department is requesting increased funds to make this extension possible and will take the necessary action promptly if the appropriations are made.

Both the colleges of agriculture and the state departments have large duties in this direction and an immense opportunity. The field is broad enough not only for both of them but also for the Federal Department and for farmers and farm organizations. The colleges will naturally direct their efforts largely along investigational and educational lines and, I imagine, the state departments will more and more deal with regulatory matters of large import and wide range and will cordially co-operate with other agencies in the general educational effort. The Department of Agriculture stands ready to do its part, so far as its facilities permit, in co-operating with both agencies in the fields prescribed for each by state laws, with an eye single to the largest service not only to the masses living in the rural districts but to the whole people of the country.

CANADIAN SCREENING IN COURT

The Canadian Feed Manufacturing Company, because it could not buy the screenings it wanted of the elevators at the head of the lakes, brought charges of conspiracy and discrimination against the elevator companies, and asked that an export embargo be declared on screenings as they were all being sold in the United States.

The charge of conspiracy has been under investigation for some time. A corporation called The Superior Company had been formed to handle the screenings from all of the elevators, and this pool was the basis of complaint.

The case finally came before the Board of Commerce, but in the meantime the attorneys of the

contending parties arranged an agreement by which the Superior Company would sell all the screening it needed to the Canadian Feed Manufacturing Company.

THE MOST MODERN PLANT IN INDIANA

Experienced grain dealers who have seen it, pronounce the new plant of the Goodrich Bros. Hay & Grain Company at Farmland, Ind., the most modern country elevator in the state. The parent firm at Winchester, Ind., is so well known to every member of the grain trade that any comment on it or its honored members would be superfluous. But the new house deserves careful description.

The plant was designed and built by Ballinger & McAllister of Bloomington, Ill., and as the illustra-

Weller Manufacturing Company. The spouting is steel throughout.

The additional equipment of the house consists of a 1,500-bushel per hour Monitor Cleaner; a 1,000-bushel corn sheller; and a 20-inch attrition mill.

The power is derived from four electric motors totaling 60 horsepower, the current coming from a trolley circuit. Belt-drive transmits the power through the house.

In addition to the grain the new house is equipped to handle hay, feed, wool and seeds. Adjoining the elevator is a tile warehouse on a concrete foundation with cement floor, 108 feet long and 20 feet wide and 12 feet high. The building is divided into two rooms, one for seeds, the other for hay and feed and wool.

The office of the plant is in a separate building of tile construction and very completely furnished.



NEW PLANT OF THE GOODRICH BROS. HAY & GRAIN COMPANY, FARMLAND, IND.

tion indicates, it has rather unusual features. The extreme height of the building compared with its ground plan, makes it a landmark for the countryside and holds considerable advertising value. It is 115 feet high and 24x36 in area. The four large bins and six small bins have a total capacity of 35,000 bushels, and the number is sufficient to take care of the divers grains that are offered, wheat, corn and oats. About 300,000 bushels per year will be handled at the station, which is on the Big Four Railway.

The elevator is of reinforced concrete construction with a handling capacity of 3,000 bushels, in and out, per hour. In the matter of weighing facilities nothing more could be asked as there are modern track, wagon and auto scales made by Howe and Fairbanks & Morse. There are two elevator legs, 9x7 and 14x7 inches, and overhead dumps. Chain feeder to the boots and shaker feeder to the cleaner prevent chokes in these places. The conveying machinery is from the

The driveway separates it from the elevator. Inside the driveway is the auto scale and on the other side of the office, the wagon scale, so that the beam from each can register in the building. There is no wonder that visitors speak highly of the plant.

COST OF RAISING CORN AND WHEAT

The Missouri State Board of Agriculture has just issued the result of a survey on the cost of raising wheat and corn in that commonwealth. For wheat the cost is estimated at \$25.27 or \$1.94 per bushel. To get the wheat to local market costs 11 cents per bushel so that the total cost to the farmer is \$2.05.

For corn the total cost per acre is \$24.49, or 91 cents per bushel, to which must be added the 10-cent cost of marketing or \$1.01 per bushel. All of these costs are itemized in the report, the first items being land rental of \$8.43 per acre for wheat and \$10.88 per acre for the corn land.

Why Buyers Do Not Apply Grades

Country Elevator Operators Criticized by Grain Supervisor of U. S. Department of Agriculture

By ROLLIN E. SMITH

IT IS asserted by critics of the Federal grades for wheat that the grades can not be applied by country buyers, because of the lack of time. But that is not the real reason in most instances where grain is bought of the farmer on some basis other than the Federal grades.

The attention of the Bureau of Markets, United States Department of Agriculture, has been called to many instances where country elevator managers make no attempt to apply the Federal grades. A well-known Southwestern grain dealer who recently completed a tour of country stations has advised the Bureau of Markets of the conditions that he encountered. He said:

"Not only is there a lack of knowledge of the Federal grades among country dealers, but the most primitive methods are used by many in buying grain. Buyers rely almost wholly on the weight per bushel test. Yet some were using testers that had the beams fastened to the rings by wire or a bent nail. Furthermore, the weight was taken on the wheat without removing the dockage. Buyers are afraid to assess dockage against the farmers. They attempt to buy wheat with the dockage in at a reduced price."

The points brought out, which are charged to country grain buyers—there are exceptions, of course—are:

(1) Lack of knowledge of the Federal grades; (2) only one test for wheat is made, and that for the weight per bushel; (3) testers are often in such poor condition that an accurate test can not be made, and furthermore, correct methods of filling the kettle are not followed; (4) weight per bushel test made on dirty wheat, that is, wheat from which the dockage has not been removed; and, (5) buyers are afraid to assess dockage against farmers, but try to buy cheaply enough to offset the dockage.

Such conditions should not exist. For example, no man who buys grain from farmers should be ignorant of the Federal grades for wheat, shelled corn, and oats. Any grain buyer can easily familiarize himself with the few primary features of the grades. Every farmer has a right to demand, if he wishes to do so, that his wheat, shelled corn, and oats, when he sells them, be graded, and the price made accordingly, on a basis of the Federal grades.

This touches upon the fifth point in the above quotations, namely, "buyers are afraid to assess dockage against farmers, but try to buy cheaply enough to offset the dockage." Thus the farmer, in effect, forces the buyer to ignore a correct and accurate method of arriving at the price basis, but makes nothing by it.

Some line elevator companies complain that they lose on grade on the wheat bought in the country by their elevator managers. The wheat is graded lower, as a rule, at the terminal market than the grades given to the farmers by the companies' buyers. The companies do not tell the whole of the story, however. For, not only are many buyers "afraid to assess dockage against the farmers," but they are also "afraid" to buy on grade, even when they are familiar with the grades. The farmer, as a rule, wants No. 1 grade for his wheat, or, if it is obviously not No. 1, he wants No. 2. So the buyer gives him his grade, but offsets the grade by paying a little lower price than No. 1 or No. 2, or by not allowing full weight, or, in states where dockage is charged, one or two pounds a bushel is discounted for dockage.

The farmer is pleased, for he got the grade he wanted, and the buyer holds his customer. If the buyer is buying and shipping on his own account, the incident is closed when the farmer is paid; but if the buyer is an agent for others, the incident is the beginning of trouble and dissatisfaction. Much of the wheat bought from the farmer as No. 1 does

not grade No. 1 at the terminal market to which it is shipped, because it wasn't No. 1 when bought, and the buyer knew it—and he didn't pay for No. 1. But when the buyer is the agent for a line elevator company or a farmers' elevator company, the company is dissatisfied because it "loses on grade;" dissatisfied because the licensed inspectors at the terminal do not give the same grade as their agent gave the farmer.

It is a mistaken policy on the part of the farmer to insist that his wheat shall be graded No. 1 when the grain is not entitled to that grade. The buyer who overgrades in order to please his customers, and then underweighs or assesses more dockage than justified, is equally unfair both to the farmer and to the company for whom he is buying.

Reports from the different grain states, however, are to the effect that here and there country grain buyers are buying wheat from the farmers by Federal grades. Such buyers are holding their customers, and the farmers, when they understand that the elevator manager is buying strictly by Federal grade, seem better satisfied than to have a buyer make a price without any definite standard as a basis.

It is, of course, impossible for a buyer to apply many tests to every load of wheat hauled to his elevator, nor is it necessary. An elevator has a limited number of customers, and the buyer usually knows every farmer personally. Furthermore, he knows the quality and condition of his grain after a load or two has been marketed. The buyer may easily make the necessary tests on a sample from the first load, and keep the samples as a type sample of that farmer's wheat or corn or oats for the remainder of the season. It is not unusual, in some localities, for a farmer to bring a sample of his wheat to the buyer soon after threshing, and offer to sell his crop on the basis of a price made on the sample, with the understanding that the wheat when hauled shall be equal to the sample. This gives the buyer plenty of time to apply all the tests necessary to establish the correct grade.

Buying by Federal grade in the country seems largely a matter of inclination on the part of the buyer, except when the buyers are not familiar with the grades. When the Federal grades are not applied, it is not because of lack of time nor for any other logical reason. One point should be borne in mind in this connection. That is, it is not necessary for the country buyer to test every load of wheat, corn or oats that is offered at his elevator. As a rule, he knows every farmer in his locality. A test of the first load or two of a farmer's crop will, under normal conditions, give a fairly correct idea of the quality and condition of that farmer's grain. Every load hauled will, of course, be closely examined. If there is any material difference between later loads and the first two or three, the buyer will at once detect it. A country buyer should know every customer's grain at the beginning of every crop season just as well as he knows every team, and he can tell his customer's horses as far as he can see them.

RAILWAY ENGINEERS CONSIDER DUST EXPLOSIONS

Prevention of dust explosion can be roughly placed under three heads: Removal of dust; eliminating chance of ignition; proper construction of elevators. It was upon the last of these that David J. Price, engineer in charge of grain dust explosions, Bureau of Chemistry, dwelt on November 19 when he spoke before the National Railway Fire Protection Association at Chicago. His audience was made up largely of structural engineers and they listened with the closest attention to Mr. Price's address.

He began by reciting the list of serious explo-

sions and the losses which occurred before the Grain Corporation was established. Then he told of the dust prevention campaign during the war and the many months during which no explosion took place; then of the serious losses in life and property since March of this year. Continuing, Mr. Price said, in part:

It has been found that the nature and behavior of dust explosions have not been fully understood by the engineers that have been called upon to deal with this problem. We are more or less familiar with explosions of gas and understand readily that it requires a certain mixture of gas and air before an explosion can occur. This mixture must be in proper proportions, being either too weak or too strong before the explosion can occur. The same is true with the dust explosion and although the limits have not been definitely established it now appears that there must be present a certain proportion of dust and air.

Very recent experiments with grain dusts indicate that the rate of flame propagation is very rapid and large pressures are produced. In many cases these pressures exceed the pressures produced under similar conditions with coal dust.

Results of Recent Findings

The investigations of recent dust explosions bring out some new points that had not been developed in previous investigations. The two most recent explosions in grain elevators has shown very definitely that a plant constructed of fire resistive materials is not explosion proof. It raises this question: Is the tendency in a so-called fireproof plant inclined to create a feeling that the immunity from fire removes all possible plant danger? It is fully understood that dust explosions cannot propagate unless there is dust present in the plant to feed the flame? This would require constant vigilance for dust removal. If a fireproof plant is not maintained in good condition and the dust is allowed to accumulate, the damage to the plant will probably be more extensive than would be the case in a poorly constructed frame elevator. Experience has proven this to be true and extensive damage has been caused to plants so constructed. This matter cannot be emphasized too strongly at this time in order to bring to the attention of our constructing engineers the necessity of consideration being given to dust explosion prevention. It is felt that both the workmen and the officials are inclined to believe that the construction of the plant removes all possible danger. The dust explosion hazard cannot be eliminated unless the dust is removed.

Interest of Railroad Engineers in Dust Explosions

It is felt that engineers engaged in fire protection work on the railroad system of the country should be vitally interested in the prevention of dust explosions. This should also be necessary in plants owned directly by the railroads and also in plants adjoining railroad property. In some recent explosions railroad property has been damaged in cases where the plant was located adjoining the same. Such good results were obtained during the war by educational methods that it is still felt that by the extension of the work along proper lines that can be successfully continued. The property directly owned and operated by the railroad companies could be guarded against dust explosion by direct enforcement of the requirements, while in other adjoining properties by educational efforts the facts could be brought home definitely to the management and the employees.

Dust Removal Essential

It is difficult to consider the prevention of dust explosions unless direct attention is given to dust removal. The engineers engaged on this work have been inclined to feel that provision should be made in all grain elevators to apply suction systems at points where grain is handled. At the present time this matter cannot be too strongly urged owing to existing regulations requiring that no loss of weight occur in the handling of grain shipments in the elevators. The regulations require that the weight of the grain going to the receiver be maintained as near as possible to that received from the shipper. This involves the handling of the dust which is explosive material over and over again. If we were dealing with dynamite or gasoline in the grain it is quite likely that we might more seriously consider this matter.

Definite results would be accomplished in this convention if this Association would co-operate and pledge its support to dust explosion prevention. It is felt that there are some plants owned and operated by railroads where conditions could be improved. It is therefore suggested that co-operation be given along the following lines:

1. Provision for the proper maintenance and upkeep of all elevators in so far as they relate to dust removal.

2. The removal of all possible causes of dust explosion and the enforcement of the regulations in connection therewith.

3. In the construction of elevators, especially the modern fireproof type, that the engineers devote special attention to dust explosion prevention.

Toledo—The Principal Seed Market

BY HAROLD F. WENDT

FARMERS, traders, investors and speculators recognize this fact. And it is with pride that the Toledo Produce Exchange and the members of that organization are setting about to impress more firmly this fact upon the outside world.



SEED TESTING LABORATORY, TOLEDO

There are some who may challenge Toledo's claim. But here are the facts.

God located this city in the center of the clover producing section of the United States, and to the majority of individuals it means but one thing—the principal seed market of the world.

Located on the ninth floor of the Second National Bank Building is the Toledo Produce Exchange. It is here that the future—or may be fate—of seeds is decided. Here gather the traders who, between the hours of 9:30 in the morning and 1:15 in the afternoon, hold the prices of clover, alsike and timothy in the palms of their hands. The movement of field seeds is to a great extent decided here.

It is the only seed market in the world where seeds are sold for present and future delivery, six days every week and 52 weeks every year. It is on this market that the outside world depends for official seed information—not this country alone,

not only our own seed growers and traders, but those of Europe, too.

Cash seed has been traded in here for more than 47 years, and possibly more than that length of time, but the official record dates back that far during business here. So, although it is not a new thing, the importance of this market is dawning more and more upon others in the trade. Futures have been traded in for about 40 years, so far as red clover is concerned, and about 10 years for timothy.

It is this market which benefits the rest of the world. The great system of organization of the numerous big firms which have located here has enabled them to furnish official information as to prices, seed movement, stocks, condition of the crops, and to execute orders. A great system of communication has been established from outside points to this market. In addition to all the private branch offices of the Toledo firms on the floor of the Exchange are six private wires of Chicago houses and two telegraph offices.

It is at this time of year that stocks are accumulating at this market. Seed starts moving Toledoward in the fall and does not leave here until spring, about the first of March. Commission houses for the most part buy the arrivals. When a car or lot of seed arrives in Toledo it is first examined by the official seed inspector, who is

Exchange. The consignees are then sent the sample. They in turn offer the seed for sale. The price received is determined by sealed bids, which are opened at a specified time.

As to the storage of these seeds, while they are out of practical use, millions of dollars are invested in establishing storage facilities and other forms of equipment for the handling of the stocks. The members of the Toledo Produce Exchange



J. E. BENEDICT, JR., TESTING SEEDS

who have warehouses are: The Toledo Field Seed Company, The Churchill Grain & Seed Company, W. H. Morehouse & Co., S. W. Flower & Co., and the Crumbaugh-Kuehn Company.

Seed received here each year averages about 158,000 bushels of red clover, the market value of this seed at present amounting to more than \$4,000,000. The receipts of timothy average about 215,000 bushels.

With such large quantities of seed coming into this market it is reasonable to expect heavy trading. And heavy trading there is. The largest single trade in recent years was recorded on August 24, 1908, when 7,000 bags, about 17,500 bushels, of December delivery were sold on the floor of the Exchange.

In the execution of these trades, no real money is handled. Offers of seed for sale or bids are accepted by other traders verbally. Records of transactions are kept on small cards only and trades are checked up at the end of each session. C. A.



FLOOR OF THE TOLEDO PRODUCE EXCHANGE

in the employ of the Toledo Produce Exchange, a sample representative of the arrival being drawn, inspected and graded according to the rules of the

accepted by other traders verbally. Records of transactions are kept on small cards only and trades are checked up at the end of each session. C. A.



ASSISTANT SECRETARY CARL BRYANT



PRESIDENT FRED MAYER AND VICE-PRESIDENT HARRY DEVORE



SECRETARY ARCHIBALD CASSAWAY

King & Co., Southworth & Co., and J. F. Zahm & Co. are seed commission merchants specializing in consignments and are known the country over and in European countries, several of the firms doing quite an extensive business with the latter previous to the war. The business of these firms is long established. This fact is easily understood when it is taken into consideration that it was way back in the year 1849 that the original Toledo Board of Trade was organized. Dennison B. Smith was the first president of the Exchange. The present organization was given birth to early in 1876. At the present time, the Toledo Produce Exchange has in its folds 38 members.

These men, upon whom the trend of the seed market of the world so much depends, have formed a great organization—not in a business way alone, but in the direction of fraternity. Visitors on the floor of the Toledo Exchange are amazed. A session reminds one of a grand old get-together meeting of old time friends. Regular brothers, that. For president of their organization they have elected for the current year, Fred Mayer; for vice-president, H. R. DeVore; second vice-president, R. S. Sheldon; secretary, Archibald Gassaway; and treasurer, Kenton D. Kielholtz. Directors of the Exchange are: Frank I. King, David Anderson, Fred O. Paddock, Jesse W. Young, Frank R. Moorman, George D. Woodman, Jesse D. Hurlbut, Frank W. Annin, Charles W. Mollett and Raymond P. Lipe.

Several of the faces familiar on the floor of the Toledo Exchange were missing during the war, but are now back from the service of Uncle Sam. As a Red Cross organization, the Toledo Produce Exchange is 100 per cent efficient. And as to charitable work. Well, since 1901, Harry Aldrich, blind for years, has sold candy and peanuts to the members on the floor and what he needed to live

comfortably and could not be made at his stand, a good spirit, the T. P. E., on Christmas has seen to it that he is provided for during the year.

And now, in order to further establish the claim of being the principal seed market of the world, the Toledo Produce Exchange has something new to advertise. The Toledo branch of the Commercial Seed Laboratory, co-operating with the Toledo Produce Exchange, is now prepared to make purity and germination tests of clovers, timothy and other non-chaffy seeds at their new laboratory here, at reasonable prices. The establishment of the new laboratory means much to the seed dealers of the Middle West. It will enable them to obtain reports on purity tests in quick time. Samples will be tested to ascertain their compliance with any state seed law desired or with the Federal Seed Importation Act.

The Exchange invites seed men to address all samples to the secretary of the Toledo Produce Exchange, or any firm member of the Exchange, or to the Commercial Seed Laboratory, 2113 Second National Bank Building, Toledo. J. E. Benedict, Jr., who came here from Washington, has charge of the laboratory. Two spacious rooms have been fitted out with the equipment.

The Exchange had no selfish ideas in view when it established the laboratory. It was not a financial enterprise. In fact, some doubt has been expressed as to whether expenses can be paid from the small fees which are to be charged. For purity tests on red clover seed, alsike clover seed, or timothy seed, charges are \$1.25 each and germination tests on the same are 30 cents each. In the past, seed was graded only. Two rooms have been and are being used as a grain grading laboratory, where grains are tested for purity and moisture and are graded. Chief Inspector Edward H. Culver is in charge of the work in this laboratory.

reduction, or elimination system for dust and get rid of it as fast as formed, same as the miller removes the fine flour as it is formed?

But in the B. & A. Elevator there are as yet no dust removal appliances, more's the pity, and the workmen and dust explosions have to take chances, same as they have hitherto been forced to do.

Grain unloaded in this elevator, goes to garner in the top of the house, from which it is drawn into hopper scales, supposedly of 100,000 pounds capacity each, but usually this weight of grain is hard to get into a garner or a hopper of that capacity, unless of good heavy oats. Many cars have to be split now-a-days, as they run up considerably above 100,000 pounds capacity.

A single transfer belt placed below the scale-bin discharge openings takes care of the weighed grain



THIS BOY COMBINES WORK AND PLEASURE

Informal Notes of an Elevator Pilgrimage

No. 21—The Boston & Albany Elevator at East Boston

By JAMES F. HOBART

THE total terminal elevator capacity of Boston is about 2,500,000 bushels, divided among three elevators, two of which have been previously mentioned in these notes. The third elevator, and the most modern of all, stands along the East Boston water front, just across from the Central Wharf and Custom House of Boston. The Boston & Albany freight yards occupy several piers at this point and about 10 years ago, just after the big Chelsea fire swept the B. & A. docks and cleaned out the old 1,000,000-bushel elevator, which used to stand down near the "Narrow Gauge Railroad," as people used to call the Boston, Revere Beach & Lynn Road.

But a better elevator was built of steel, tile and brick and it has galleries and conveyor belts which, placed to end, doubled as the belts are used, would reach 9,480 feet, or nearly two miles! These conveyors deliver grain along six piers and serve the Eastern Pier, the Clyde S. S. Pier, the Cunard S. S. Pier, the Leyland S. S. Pier, and one other, No. 5, right adjacent to the old "Narrow Gauge" Ferry.

To reach the elevator I took a car through the East Boston Tunnel and was landed close to my destination in no time. I found the elevator office, and was quickly in touch with that most affable gentleman, Mr. Dow, the superintendent, who has been there 35 years. He took me all over the place and showed and explained matters, then turned me over to the millwright and to the electrician who showed me many more interesting things. And I must say that this elevator, which although not strictly modern—it has been built for nine years—may certainly be called a pioneer of modern elevator practice. And so well were things arranged in this elevator, that some of the later and supposedly more modern structures, will have to go some to be found as convenient and as efficient.

In most New England elevators, unloading is done right inside of the elevator, and this one is no exception. Twelve cars on two tracks, six on

each, would be pulled into the building, where the grain could be dumped from the cars with some degree of comfort. But this arrangement of dumping in the house surely makes some elevator men think about the dust which arises during the grain shoveling and wish their elevator was fitted with apparatus to take care of this dangerous by-product.

Some grain elevators are thus equipped with dust-collecting machines which will not permit a particle of dust to pass into the building from any



of the grain-throws which may be taking place at various points. If the dust be removed at its point of origin, there will be no dust in the elevator and no explosions can happen. It surely will not be many years when all elevators and flour mills will be equipped with the necessary exhaust apparatus for taking care of every particle of dust as it is set free. The flour miller swears by the gradual reduction process for grinding grain into flour. Why should not the elevator man have a gradual

on the receiving side of the house and another 36-inch belt is located beneath the scales on the shipping side of the house. In all, there are 16 hopper scales in this elevator—six receiving, five shipping, and five cleaning scales.

There are 168 bins, large and small, in this elevator, and the bins are made of steel. The tile, brick and steel construction of the elevator building, in connection with the steel storage bins, cause the outfit to be pretty near fireproof. Access to the upper parts of the elevator is by means of a steel elevator cage in a steel and tile well, guarded by steel doors both to cage and well, and both doors must be closed and locked before the 7½-horsepower motor which drives the elevator can be prevailed upon to start.

The foreman's office is in a well lighted, well heated room at the top. The blackboard is located there, and a glance at it showed very few bins to be empty. In spite of the tie-up of ships on the other side, carloads of grain are constantly though slowly coming in. Many of the large storage bins in this elevator hold 13,000 bushels of grain each, and they were all pretty well filled at the time of my visit.

A very thorough and elaborate system of telephone intercommunication between various parts of the elevator and the galleries has been installed and is kept in perfect order. The electrician force at this elevator is certainly up-to-date and wide awake. And they have need to be, for they have a big job on hand, caring for the many types of electrical equipment which have been installed in the elevator. The interconnecting telephone has upwards of 30 stations on its indicator board, and nearly all are in use. The superintendent's office is thus connected with about 30 points in the elevator and galleries, where exactly similar instruments are located, with result that any station may at will talk with any one of the other stations. And I must say that the system used in this elevator seems to be a good one and is kept in first-class condition so it is in perfect working order—something which cannot be said of many installations of the shop telephone.

Mr. Dow, from his office on the ground floor, close to the dryer end of the elevator is therefore able

to communicate at will with almost every part of the elevator. Stations have also been installed at many points along the thousands of feet of gallery conveyor belts, thus making it possible to reach workmen at almost any point in the galleries, and, what is also of vital importance, a workman at almost any place, could reach the office in case of need or emergency.

In addition to the internal system of telephones, two Bell telephone stations are maintained in the elevator, one in Mr. Dow's office, the other in what is known as the supervisor's office, in which all the electrical test instruments are located, the storage batteries for operating the various signal systems, the watchman's clocks, three of which are installed in a single case. Also in this office are located test stations and switches for controlling the Edison current by means of which the elevator is operated, three large transformers being used, one each week in rotation. They step down current from 14,000 volts to the 220 and 110 required for the many motors and lamps.

In the supervisor's office, I also noted a small charging set by means of which the three storage batteries used for the internal telephone system, the watchmen's clocks, and the dry sprinkler system, were operated. The little A C motor is direct connected to the small D C generator which charged either of the three storage batteries.

The machinery in the Boston & Albany Elevator is driven by 47 independent General Electric Motors, all A C Type and ranging in size from 7½



HE FOUND A "TRUCK LIZARD"

to 100 horsepower which last is necessary to operate some of the longer conveyor belts in the galleries. Distant control mechanism is used to operate each and every one of these motors and with the exception of the little motor which operates the passenger elevator cage, every motor is started from a control room located adjacent to Mr. Dow's office.

Not a motor in the structure, save the elevator motor, can be started from any part of the building outside of this little control room. Consequently the attendant, who is always in attendance and never leaves the room without having an assistant present, always knows just what motors are in operation, starts them when signalled by the proper person, and stops the motor when its work has been finished, unless the motor may have been stopped by the man who was using the machine driven by that motor.

After Mr. Dow had taken me all over the elevator, we went to the millwright's shop, which was also shared by the electrician. There I met the veteran millwright, Mr. Luce, who had been in the employ of the elevator nearly 45 years. He was a millwright in the old elevator when it was constructed. He worked on the new structure when it was built, and with one assistant, cares for every bit of the machinery in the big elevator, its two miles or more of conveyor and elevator belts included.

Even with all the work necessary to keep the big elevator agoing, the veteran millwright found time to stop work and relate many very interesting anecdotes of old-time and new-time elevators. It is

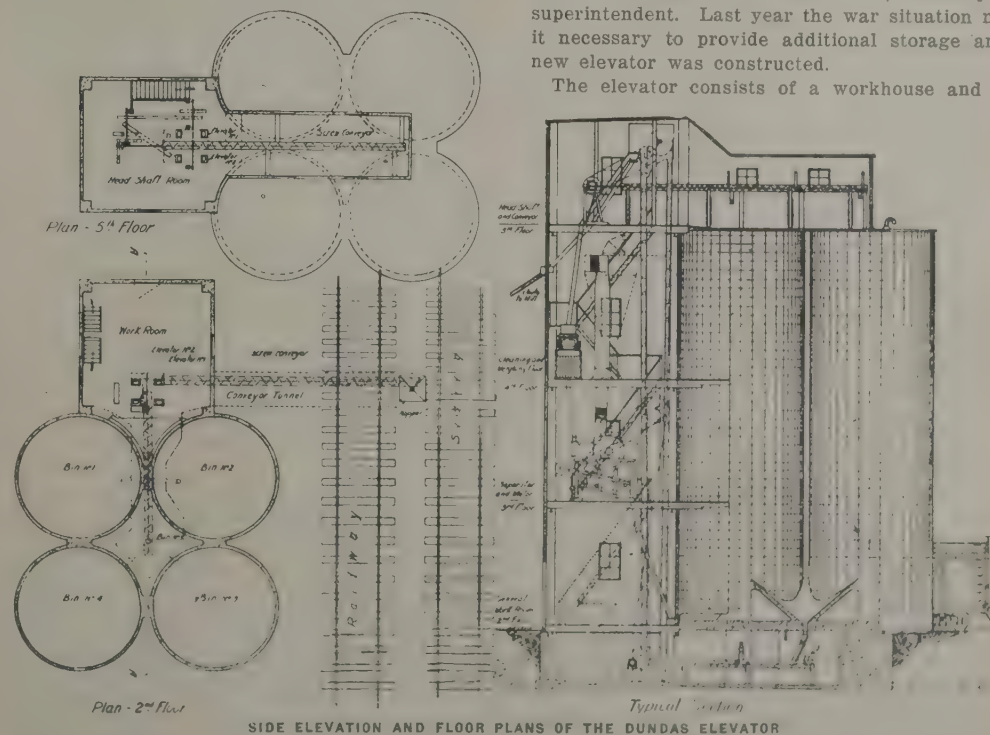
to be regretted that space prevents the telling again, right here, of some of these tales. But perhaps of such things, a whole story later.

Taken all together, there is as previously stated, about 9,480 feet of 36-inch belt conveyor in the galleries, or all of 19,000 feet of belting. This is nearly all canvas, six and seven-ply.

A large Hess Dryer stands at one end of the elevator building, a brick addition having been constructed to cover the dryer unit which is supplied with steam from a distant boiler, the pipe for carrying the steam being placed far overhead and suspended from tall steel double posts between which the steam pipe, well insulated, was suspended. A smaller pipe, evidently for the return of condensation, was suspended directly under the steam pipe. This construction, towering far above the tall brick street wall, had almost the appearance of a rolling mill.

I cannot close this story without recapitulating the story of how motors are started in the motor-control room by the boy in charge. The story is briefly as follows: A workman at a distant part of the gallery, rings a bell. An annunciator drop in the motor room falls, signifying that a certain motor is to be started. The motor boy throws the starting switch and watches the ammeter rise, then fall back, as motor gets up to speed. Then the boy throws out the starting lever, throws over the running lever and the motor is ready for work. Then the boy signals to the distant workman, who starts the required machine by throwing into gear a paper friction, many of which are used.

I will close this long letter with a short account of how some of the grain men who attended Dr. Brown's recent dust explosion lecture at the Boston Chamber of Commerce, went hunting "truck lizards" after the lecture! And they got some too. At least one man caught a good one. Walking to Atlantic Avenue over the streets sloppy from much recent rain, a group of the grain men came across several urchins who were (seemingly) excitedly poking with a stick around the tongue of a street railway switch. "What are you doing," asked one of the grain men. "Hunting truck lizards, sir," replied the urchin. "What is



it like?" asked the grain man, "I never saw one of them." "Here is one," bawled one of the boys and the grain man rushed over to him just as a passing truck slid "sploof" from a big smooth stone into a puddle of creamy Boston mud and a liberal blotch of the mud hit the grain man under one eye. "You got him, Mister," shrieked the urchins as they vanished up a cross street and the grain man looked all his profanity over in hopes of finding his handkerchief among it!

A WELL-BUILT CANADIAN HOUSE

One of the most striking advances the grain trade has made in recent years is the improvement in elevators of small capacity. Only a short time ago cribbed construction was the only kind thought of and the conveniences of the ordinary house were conspicuous by their absence. On the contrary,



ELEVATOR OF THE KERR MILLING COMPANY

today fireproof materials are being used almost exclusively and small houses are as carefully designed as the largest houses.

This is well illustrated in the 24,000-bushel concrete elevator of the Kerr Milling Company of Dundas, Ontario. This company was organized in 1901 by Robert Kerr, Sr. Upon his death in 1910 the company was incorporated with W. J. Kerr as president and manager, and Robert Kerr, secretary and superintendent. Last year the war situation made it necessary to provide additional storage and a new elevator was constructed.

The elevator consists of a workhouse and four

circular storage tanks with one smaller center bin. It is equipped to handle 500 bushels per hour with an Allis-Chalmers Warehouse Separator that can handle all the grain as fast as it is received.

In addition the house is equipped with an automatic scale and a complete dust collecting system. One 10-horsepower electric motor furnishes the power. Wheat, corn and oats are handled, about 200,000 bushels passing through the house in the course of a year.

THE AMERICAN ELEVATOR AND GRAIN TRADE

Published on the Fifteenth of Each Month
BY

Mitchell Brothers Publishing Co.

OFFICE:

Manhattan Building, 431 South Dearborn St.
CHICAGO, ILL.

A. J. MITCHELL.....Business Manager

Subscription Price - - - \$1.00 per Year
English and Foreign Subscription 1.75 " "

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

Official Paper of the Grain Dealers' National Association and of the Illinois Grain Dealers' Association.

CHICAGO, ILL., DECEMBER 15, 1919

LET'S FACE IT

PASSING a resolution in an association meeting apparently has little effect on a Government department or bureau. Last year practically every grain dealers association in the country, by resolution, censured the Department of Agriculture for its activity in promoting co-operative marketing organizations among farmers. Last month at Chicago, David F. Houston, Secretary of the department, showed how much effect these resolutions had, when he said: "Particularly must the Federal and state agencies omit nothing to promote helpful farmers' co-operative associations." His remarks on this subject in full may be found on another page of this issue.

We may as well face this condition, gentlemen; the Department of Agriculture has adopted co-operative methods as a definite policy and will stick to it.

There are two kinds of co-operative associations. One organized as a stock company on a business basis, and operated as a money-making, conservative business. With this kind of a company no member of the trade can have a legitimate quarrel, although some have suffered from the additional competition, as they would from any other-at their station. In most instances these companies work side by side with regular dealers without animosity or friction, in fact, the relations in some cases are very friendly, as they should be in all.

But there is another class of co-operative societies that is quite a different breed of cats. These are organized wholly on a basis of class consciousness, farmers against deal-

THE AMERICAN ELEVATOR AND GRAIN TRADE

Thirty-Eighth Year

ers, *rures versus urbes*, exploited against exploiter. The organizers are paid to organize without regard to the needs of the community to be served; they are the agents of a socialistic, political organization, and their methods are those of the demagogue and spell-binder. Co-operative associations of this kind are a menace to the community and to the nation; their principles belie their name and the poison of their doctrine should be fought and destroyed by every honest man.

But do not lose sight of the fact that legitimate co-operative societies are here to stay. Don't waste your time in trying to fight them; you can employ it to better purpose in getting your business on a basis where you can meet the competition.

A WIDER HORIZON

THE past year will stand as an industrial landmark for all time. Like all industries the grain trade had been inclined to regard its business in a too restricted way. Beyond the difference in the buying price and the selling price of grain there was little interest, and transportation problems and other matters were considered important only on this basis.

Now, however, conditions are very different. The war and its aftermath have forced upon the attention of every grain dealer subjects of the widest scope. We begin to see how closely international interests are related; how each business is concerned with the prosperity and well being of every other; how intimate is our relation to labor transportation, fuel, merchant marine, stability of government, political economy and many other subjects which used to have no part in our business thoughts. We cannot get away from them now, and we find that readers are generally more anxious for information covering the wider field. Our limitation of space precludes our covering these allied subjects in anything like a thorough manner, but so far as possible editorially and otherwise we will extend our field of discussion, but without sacrificing our accustomed space on strictly grain, hay, seed and feed matters. However, our columns are open for discussion of these problems and we invite communications dealing with the new and larger field of interest.

REQUIESCAT IN PACE

TWO fundamental lessons have been learned during the past two years which will be salutary in the future development of the country: The fallacy of interference with natural prices of commodities; and the inefficiency of Government operation of railroads. Socialist agitation had half convinced a great many people that good might come of these things, the farmers of the country being especially receptive to both theories. We were bound to have a long siege of propaganda in their favor and eventually a try-out. Well, we have had it.

No one raises a voice in denial that price-fixing has been a rank failure, and all are

agreed that the sooner the Government withdraws all interference of supply and demand the better off we shall be. No doubt many commodities will soar in price, but that very elevation will prove the corrective remedy, for people will refuse to buy.

As to the railroads, no one but the railroad brotherhoods and allied groups of organized labor, who will directly profit by it, are in favor of Government operation. It has been charged that railroad officials have deliberately destroyed the efficiency of the service so as to discourage Government ownership, but this charge is without foundation. Reorganization is too serious and difficult a matter at best to complicate it with voluntary problems. Even the farmers, who, a year ago were in favor of Government ownership, are now unitedly opposed, judging from the strong resolutions passed by the Farm Bureau Federation at Chicago on November 13, and by the National Grange meeting on November 21.

The country is a gainer if these two propositions are permanently dead and we gladly write their epitaph, Rest in Peace.

DEMURRAGE CASES DISMISSED

THE demurrage cases brought before Attorney-Examiner Charles F. Gerry, No. 1026, *Armour Grain Company vs. Illinois Central, et al.*, and No. 10543, *Minneapolis Traffic Association, et al., vs. Ann Arbor, et al.*, and related cases, were recommended to be dismissed in the tentative report of the Examiner. Hundreds of thousands of dollars of demurrage are involved and grain dealers in all markets are interested in the outcome.

The complaints were based upon the fact that during the fall of 1916 and most of 1917 the railroads did not furnish cars enough for outbound shipments to keep a steady flow through the transit elevators. Consequently, inbound shipments, on which demurrage was assessed, piled up in the yards. The complainants held that by contracts, the carriers were, and are, obligated to furnish them with outbound cars, or relieve them from demurrage on their inbound cars. This, they asserted, followed from the fact that their elevators were located upon the lines of but one carrier, which, therefore, was the delivering line of the inbound shipments and the initial carrier of the outbound shipments; and that the carriers, by joint tariff arrangements gave them the benefit of rates which were actually, or in effect, through rates from original point of origin to final point of destination as of the date of the original shipment, and, therefore, no demurrage should have been assessed at an intermediate point where the shipment was not held for, or at, the shipper's direction.

In answer Mr. Gerry said the carriers were liable to furnish cars only for a usual demand, and the demand during this period had been extraordinary. He said further that there were two separate and distinct contracts of carriage covering the shipments of complainants. The first contract was completed, he said, after proper placement of car and a

reasonable opportunity afforded for unloading, in this instance, 48 hours. After notice of arrival, he said, the shipper had complete control over the shipment. He might have sold it locally, reshipped it, or otherwise disposed of it as he might elect. The new contract of carriage arose if, and when, the complainants elected to reship the grain so received on first contract. It was up to the elevator operators to regulate their purchases of grain so that this congestion would not occur.

This decision makes it necessary for the elevators to pay the full demurrage charges and if the preliminary decision should be upheld it will be a costly business. While the strict interpretation of the law may sustain, Mr. Gerry, common barnyard justice cries out against it. The grain trade did its utmost to supply a destitute world, and that it should be penalized for conditions beyond its control seems an ungrateful acknowledgement of its effort.

WILL FEEDS NEED LABELS?

FEED manufacturers and dealers will be interested in a test case recently decided by the Appellate Division of the Supreme Court of New York, in which it was held that when a product is not adulterated and is not unwholesome there is no authority to compel the statement of the ingredients. The specific case was brought against Durkee's Salad Dressing, but the decision is amply broad to cover any food or feedingstuff.

While this decision affects only the interpretation of the New York law, it contains obvious possibilities for testing similar laws of other states or even the Federal law itself. Restrictions of feed manufacturers reached a climax in Alabama, and this industry, which is of rapidly growing importance, needs some protection from legislators who seem to be almost rabid in their determination to protect animals from blue sky feed. When the industry was young and in few hands there was some reason for stringent laws, but now the competition is so keen, and dealers are spending so much in advertising to establish a good will for their product, there is little chance of their jeopardizing their reputation with an unwholesome or adulterated product. It isn't good business, and that is the best possible protection a feeder could ask.

THE HORSE SURVEY

THE report furnished to the directors of the Horse Publicity Association, as to the condition of the horse industry in the country, being a survey covering five months of labor by an organization of specialists in this work, disclosed some surprising facts. There are more horses in use in the country than ever before, and the demand for high grade stock cannot be supplied; in the group of states where 75 per cent of all the power tractors are used, the use of horses has increased; the same is true of motor trucks, except in some of the larger cities, so that it seems that trucks and tractors are not supplanting horses as the hay and feed dealer

feared, but are merely furnishing supplemental power. The motor truck, it was found, is not so much a rival of the horse as it is of the railroads.

While this report was made without prejudice and as the result of careful investigation, hay dealers are conscious of certain falling off of hay demand in many markets, which is contradictory, to say the least. However, there was no question but the Horse Association is considerably encouraged by the report.

BACKBONE WANTED

GRAIN dealers generally, and particularly in the Southwest, do not apply the Federal grades when buying from the farmers, according to Rollin E. Smith. Instead of assessing dockage and grading down the grain, the dealer attempts to buy at a reduced rate or slip something over in the matter of weights. These methods are unbusiness-like and ethically wrong, but the farmers are to blame.

To use a high-brow literary expression, the farmers are the prize belly-achers of the country. If their dirty, weedy, light-weight wheat does not grade No. 1 without dockage, they get sore and go to some other dealer, who will pat them on the back, tell them the wheat is O. K., and then short-weight them to make up his certain loss on the grade. What can the honest dealer do to meet this sort of competition? In self defense he must use the same methods or see the grain pass his door. Every dealer would rather be business-like and honest, but the farmer has been so babied by politicians and by demagogues and by a few unscrupulous dealers that he has become as unreasonable as a spoiled child, and we know not a few dealers who would like to give him the appropriate treatment; a sound thrashing out in the woodshed.

But in the meantime the Federal grades are missing out on one of the chief functions they were expected to accomplish; to make the farmer use more care in his agricultural methods and improve the quality of grain.

THE GRAND CHAMPION

SUCCESS far beyond the dreams of the promoters attended the first International Grain and Hay Show at Chicago, Ill., held in connection with the Live Stock Exposition, November 28 to December 6. The exhibits in number and quality were unquestionably the best ever gathered together, and the interest which they commanded was gratifying.

Illustrations of the show and the principal awards appear on another page. Unfortunately the full list of prize winners could not be given, on account of its length, but there should have been another prize awarded, a prize which was richly deserved. It should have gone to John Howell, of Montrose, Colo. His exhibits won awards in 10 different classes: White wheat; hard red winter; soft red winter; durum; hard red spring; 20-ear exhibit yellow corn; single ear corn;

oats; barley, and alfalfa. In every class he met hard competition, and to win recognition in all of them is an honor which certainly deserves attention. John Howell is some farmer!

There are others, too, who should be mentioned in this connection: A. W. Jersett (or Jewett) & Sons, of Mason, Mich., won awards in five different classes; Jay Lawrence of Coshocton, Ohio, in five; W. F. Olcheck (or Otcheck) of Grinnell, Iowa, in five; L. H. Laylin of Mason, Mich., in four; and quite a number in three classes, including Otto Wolf of La Crosse, Wis.; George W. Dunseth, of Waverly, Ill.; John Dunbar of Rudyard, Mich.; Seager Wheeler of Rosthorn, Saskatchewan; Swartz Bros. of Waukesha, Wis.; and E. E. Young of Oak Lake, Manitoba. A great number won in two classes.

A specialist in one crop may be expected to get results, but it takes a high-grade man and much intelligent hard work to gain recognition for several crops. The cup winners at the show deserve all praise, but our hats are off to these progressive agriculturists.

THE COAL STRIKE AND ITS RESULT

INDUSTRY will be a long time recovering from the losses occasioned by the coal strike, but those losses are insignificant compared to the losses that organized labor has suffered, and it is doubtful if in this generation at least, it can recover. We refer to the losses of public sympathy and the general acquiescence in the strike principle. Labor has overshot its bolt. It has shown its hand, not as an agency of uplift and progress, but as a despotic power, ready and willing to inflict untold suffering to gain its end; defiant alike of public opinion and of the Government.

As to the issues of the strike we offer no opinion, for the claims of miners and operators can only be judged when all the facts are known. But of the methods employed much can be said. The temporary terms which the Government offered, pending a thorough investigation and permanent settlement, were accepted by the operators but were refused by the strike leaders. Under duress of a Federal injunction, the national union leaders sent out word to call off the strike, but this eleventh-hour action had no effect, as was probably intended. The miners under their state and local leaders left the mines in the most critical time of year and with the country bare of reserve stocks. Every industry and the health, even the life of the people, were put in jeopardy. And then after coming to realize that the radicals had lost favor the strike leaders accepted the Government proposition, very similar in terms to that they had originally rejected.

What are the results? Public sentiment has crystalized against strikes. Even Congress, which has always pussyfooted around a labor issue, shows signs of vertebrae. Every real American has made up his mind that there must be an end to this continual threat of industrial stagnation and loss. Disruption of essential industry is national sabotage, and

must be made by law a Federal offense no less than other property destroying acts. Compulsory arbitration is necessary if our democracy is not to give way to extreme socialism or anarchy.

Congress is soon to take up the railroad bills for the return of the roads to their owners, in both the Esch Bill and the Cummins Bill arbitration of labor differences are featured, voluntary in the first and compulsory in the second, and whether or not either bill is adopted as it now stands, this provision should be made an issue and insisted upon. It will give Congress immediate opportunity to show whether the lesson of the past month has borne fruit. We have been fearful of radical labor, but we are afraid no longer, for it has played its hand and found that it stands alone, a small group, which seemed a menace only because it had been working in the dark. Now Congress must realize that an overwhelming majority of the people will stand back of them in their destruction of a foreign, unclean thing.

SHARK FINS

CHINESE fishermen have a wholesome dread of the shark, but when they kill one of the beasts the fins are considered a great table delicacy. The land sharks who have been selling farms to would-be farmers at preposterous prices, have little to be said in their favor, but they may develop benign fins upon which agriculture at large will prosper.

If a man pays two or three prices for a farm he will have to hustle to make ends meet. Far too much attention has been paid to the brawn of farming at the expense of the brains. As a matter of fact our knowledge of grain, its development and cultivation is very small. New strains are being developed slowly by experiment stations and progressive agriculturalists, but it takes a long time to introduce a new seed even if it clearly demonstrates its superiority. It takes even longer to persuade farmers that treating seed with the fanning mill and formaldehyde is not just a fool notion; that sweetening soil with limestone or adding fertilizer is not a waste of time and money; or that diversified farming pays in the long run although it may not furnish as good a money-crop in any one year.

The pressure which the new owner will be under, may rouse him to apply the science as well as the force of agriculture and the result will appear in more and better grain. This is the fin which we may find growing even on the land shark.

RAIL FAILURES EVERYWHERE

DURING the past two years the grain trade has had more to complain of in the rail service than anything else. Grain Corporation orders and reports were vexatious enough, Mr. Burleson's postal and telegraph and telephone service fairly maddening, but taking it all in all the railroads were the cause of most of the anxiety and disappointment.

But if it is any satisfaction to you, the shippers in other countries have been a little worse off than we have. The rail system of France is said to be completely demoralized; the English Government has run its railroads further into debt than even our Administration; and now James Stewart, chairman of the Canadian Wheat Board, says that the failure of their railways in the West this year to move the crop before navigation on the lakes closed, has cost the farmers about \$4,000,000 in carrying charges and in all rail rates to seaboard.

A normal crop movement in Canada to the head of the lakes before ice seals the waters is 70,000,000 bushels. The season was three weeks early this year, so that the movement should have been well in excess of that amount, whereas in reality, it fell short by about 20,000,000.

This doesn't prove anything, perhaps, but it is significant that all these debacles have been under Government operation. We have yet to discover a service more efficient and quicker to respond to extraordinary pressure than those developed by individual initiative. Only in the millenium will public service call out the same effort and devotion that private interest can summon, and we are a long way from the millenium.

EDITORIAL MENTION

Coal strike's over; let's go.

The new year will bring many agencies of relief to the trade. We wish you prosperity and happiness.

Reconsignment charges of \$2 per car after the expiration of free time, has been issued as Freight Rate Authority No. 16659, effective December 1. This does away with the threat of \$5 reconsignment charges.

Secretary Houston announces that after July 1, 1920, the monthly crop reports will be issued weekly, so that the condition of crops may never be a matter of doubt or speculation. This will be a real improvement in the crop reporting service and, in conjunction with the reports on foreign crops, which, after January 1, will be issued twice a month, will give the Department the best reporting service in the world.

The grain trade is indebted to George Wells, secretary of the Western Grain Dealers Association for bringing before the Iowa Railway Commission the case of rental charged by the Illinois Central for the ground occupied by the Slaceyville Grain & Coal Company. The rental was raised from \$12 per year to \$85 in an obvious attempt to extract from the elevator company maintenance charges for the side track, the illegal maintenance charge in this way appearing as rent. The commissioners decided that 6 per cent of the land value was fair and fixed it at \$12

per year. The decision is important, as it will carry weight when the courts take final action on the matter.

The favorable report given by Examiner Wilson on Docket No. 9009, covering loss and damage claims on shipments of grain, has been given a hearing before the full membership of the Interstate Commerce Commission, with oral argument on each side, and an early decision by the Commission is expected. It will be good to get this old matter finally disposed of.

The Secretary of Agriculture states, in reply to the resolution passed at St. Louis asking for more uniform inspection, that the Department has no authority under the law to license grain samplers, but will hold inspectors accountable for proper samples as well as correct grades. The promise is held out of closer supervision and a general improvement in all markets.

Uncle Joe W. McCord, secretary of the Ohio Grain Dealers Association and for years chairman of the Executive Committee of the National Association, is in Mt. Carmel Hospital, at Columbus, Ohio, getting ready for an operation. Uncle Joe's friends are numbered in the thousands and we know that every one of them joins us in wishing him a safe trip through the surgeon's hands and a speedy recovery.

The certificates marked "heavily loaded cars" will become less numerous in the future, as R. T. Miles, of the Bureau of Markets, has issued a circular to all inspectors to the effect that "cars so loaded as to permit 24 inches of space between the top of the grain and the roof of the car should be covered by a clean certificate, unless, of course, the sampler in the course of his work finds concrete evidence that he is unable to secure a representative sample of the lot."

Charles W. Eliot, of Harvard, advises profit sharing with employes in industry and also co-operative management. There are three essentials in any business, capital, labor, and management. The first two are equal in importance and should share alike in profit and responsibility. But good management is a Heaven-sent gift and a wage earner who cannot manage his own affairs to better advantage should not be delegated to manage a business for others.

Julius H. Barnes is reported to have purchased a paper mill in New England and, with Herbert Hoover and Charles E. Crane, to have acquired control of the Washington (D. C.) *Herald*. He ought to buy up some lead and tin mines for type metal and sink an ink well somewhere, then he would be assured of his raw material at least. Is Mr. Barnes going to retire from the grain trade? It has become somewhat demoralized, it is true, but it is far from being a sinking ship to be deserted for such an unstable raft as a newspaper.

A. R. TAYLOR
Milwaukee

NEWS OF THE TERMINAL MARKETS

DAN MULLALLY
St. Louis

EXCHANGE WILL WEIGH GRAIN

Second Vice-President Bert H. Lang of the United States Grain Corporation has effected an agreement between the Missouri Warehouse Commission and the Merchants Exchange by which the weighing of all wheat for the Government for export by way of the Barge Line is now under the supervision of the St. Louis Merchants Exchange.

STOPS FUTURE TRADING IN FLAXSEED

The Board of Directors of the Minneapolis Chamber of Commerce prohibited trading in flaxseed futures in the Exchange room after the market had been in operation one day. The reason assigned for the action was the light stocks of flaxseed. Until the official close of the war the Board of Directors have the power to prohibit trading in any grain future.

RECOMMENDS CHANGE FROM PUBLIC SERVICE COMMISSION

The State Bureau of Inspection of Seattle, Wash., has submitted a report on the administration of the state grain inspection department recommending that the inspection of hay and grain be divorced from the Public Service Commission and made a part of the state Agricultural Department. The report condemned certain practices of the state grain inspection department and severely criticized the Public Service Commission for alleged lax methods of supervision of the inspection department.

WILL INDIA EXPORT WHEAT AGAIN?

India is usually third or fourth largest wheat producer. She formerly exported around 60,000,000 but the last crops of wheat and other foods were so short she imported a little wheat from Australia. She harvests mostly in March. She has only a fair prospect. Millet and rice are the chief foods. Population exceeds 300,000,000 although her area is smaller than ours. India offers great trade opportunities. While the climate is enervating in many sections and the people largely ignorant and superstitious, they are progressing more rapidly than many suppose. The area under cultivation has increased, industrial development has progressed and her trade, both domestic and foreign, has expanded. When the people become better educated their wants will increase. At present Britain supplies 70 per cent of the imports.—C. A. King & Co., Toledo, Ohio. From late Special Market Report.

RECEIPTS DECLINING

Receipts of wheat at St. Louis are declining rapidly and prices advancing steadily. The action of the Grain Corporation in disposing of its stock and the sharp advance in prices has led to much speculation as to the probable course of prices in the next 60 days. We can only see one way and that is much higher prices. Where will the miller get his supplies as soon as this Government wheat is gone?

There is a good demand for corn with 1 cent to 2 cents higher. Receipts light and advices of shipment light. We will no doubt get some slight reactions from time to time, but you will find the market trend upward.

Oats are in good demand and prices somewhat higher. We look for continued good demand for oats.

Concerning the new minimum loading on cars, this is going to cause shippers considerable annoyance if not properly looked after. The exact weight of grain in each car should be definitely

stated in the bill of lading, also statement to cover any under loading, specifying why no more could have been loaded into the car.—Elmore-Schultz Grain Company. Late December Letter.

A NEW NATIONAL DIRECTOR

When the Grain Dealers National Association at the St. Louis convention looked about for a representative of the Northwest on the Directorate, they found the man they were looking for in LeRoy D. Godfrey, president of the Godfrey-Blanchard Company of Minneapolis.

In the parlance of the street Mr. Godfrey is a comer, and he has already come a long way. In 1903 he entered the employ of G. W. Van Dusen & Co., and in a few years worked up to the position of secretary-treasurer and manager. This company is one of the interests of the Van Dusen-Harrington Company. Later Mr. Godfrey was transferred



LEROY D. GODFREY

to the vice-presidency and management of the Atlas Elevator Company, another subsidiary of the larger concern.

For a young man, Mr. Godfrey is still young, this was a position of honor and responsibility, but he was willing and able to shoulder more. In the summer of 1907 he resigned his position to organize the Godfrey-Blanchard Company. Associated with him is his brother, Rufus J. Godfrey, treasurer; and Guy Blanchard, secretary. R. J. Godfrey had been a floor salesman for the Van Dusen-Harrington Company and Mr. Blanchard was a solicitor.

The firm has branch offices in Milwaukee where Mr. Blanchard is in personal charge, and in Sioux City, Iowa, and Sioux Falls, S. D.

Mr. Godfrey has a very strong personality, easy of approach, but with a fund of dignity which inspires trust and confidence. The National Association made no mistake, for he will make a strong member of the Board of Directors.

GOOD RECONSIGNMENT MARKET

Indianapolis has been the highest market for the past few weeks on account of the good demand from the near-by markets who come here for the grain

knowing they can get it quickly. Reconsignments out of here work to such an advantage to the other terminal markets that we have been the source of supply for them for some time, since the car conditions prevent the shippers from getting in their grain on contract.

We have been selling corn on a basis of the Chicago prices f. o. b. country points for the past week; receipts very light with a continued good demand for both corn and oats. We consider Indianapolis the best market to ship to at the present time.—P. M. Gale Grain Company, Indianapolis, Ind. Letter of December 11.

MORE CONSIDERATION VERY DESIRABLE

The new Fuel Administration order forcing a three-day week upon industries will force some of the discomforts and burdens of the coal strike upon organized labor. Perhaps in the end it may prompt a little more consideration by the unions of the previous sufferings as a result of strikes, upon the general public. This order is probably a surprise, because today is the time set for the acceptance by the miners' officials of the Government terms for settlement of the strike.—Pope & Eckhardt Company, Chicago, Ill. From market letter of December 9.

CORN RECEIPTS TO INCREASE

While prices have ruled higher, the trade has been light. Low temperatures prevailing throughout the West have stimulated bullish sentiment and the estimated receipts will increase very materially in the near future. If the coal strike is settled today, which is expected, it will eventually tend to increase the movement, but for the time being, the motive power will be used for the transportation of coal and other more essential food commodities. Corn has stubbornly resisted selling pressure whereas the buying by commission houses on the breaks has been the sustaining feature of the market.—Simons, Day & Co., Chicago, Ill. From Market Letter of December.

HOGS LESS THAN LAST SEASON

We have made our usual canvass of the number of hogs and cattle on the farms at this season of the year, and the decrease which was noted in both our report and the Government taken in August continued in the fall breeding. The returns cover all the states except the principal cotton producers, and we have estimated them on the basis of the adjacent states. The hog population is 6,600,000 less than this time last year, but larger than other years except the last two, when war stimulation and high prices brought out an unusually large breeding. The total number is 68,947,000 using the year end figures of the Government as a basis upon which to base our percentage reports. The total number of 5,000,000 greater than the pre-war average.—Clement, Curtis & Co., Chicago, Ill. From December Report.

MILWAUKEE EXCHANGE'S NEW HOME

A Building Committee of 15 members has been appointed to forward the project of the new Chamber of Commerce building. The new Chamber will involve an investment of from \$1,000,000 to \$1,500,000 for site, building and equipment and is expected to give Milwaukee one of the finest and most convenient structures of its kind in the United States. The Building Committee is composed of:

H. M. Stratton, chairman; H. M. Ladish, vice-

chairman; J. H. Crittenden, W. O. Goodrich, Geo. J. Zimmerman, L. G. Bournique, C. E. Dingwall, J. M. Hackler, Hugo Stolley, Albert R. Taylor, A. R. Templeton, A. C. Elser, C. A. Krause, W. A. Hottensen, H. A. Plumb.

The sub-committees are:

Committee on Finance: L. G. Bournique, A. C. Elser, W. O. Goodrich, C. A. Krause.

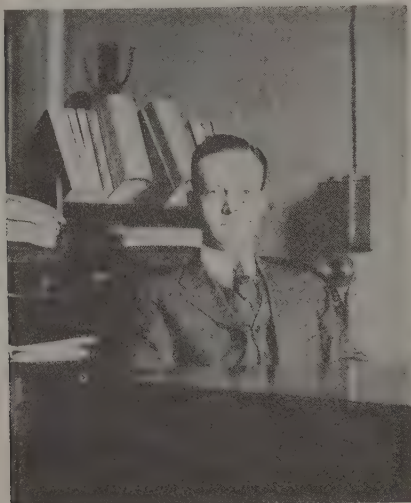
Committee on Space Requirements: Albert R. Taylor, A. R. Templeton, W. A. Hottensen.

Committee on Construction—H. W. Ladish, C. E. Dingwall, Geo. J. Zimmerman, J. M. Hackler.

Committee on Site: Hugo Stolley, Albert R. Taylor, J. H. Crittenden.

MILTON CROWE

On the opening of the annual meeting of the Ohio Grain Dealers Association at Cedar Point on June 19 and 20, 1912, the news went round that actions by one of the members of the trade had resulted in a rather unusual occurrence. This was to the effect that there was a bride in attendance at the meeting. Now, brides, although it is generally admitted are as plentiful in June as bears



MR. CROWE AT HIS DESK

in wheat after a timely Kansas rainfall, have always been scarce at a summer meeting of grain dealers. Why this should be so it would probably be difficult to state, unless it could be attributed to the fact that the average grain dealer doesn't usually take chances until later in the season when conditions are more settled. But just as there are exceptions to all rules, Milton Crowe, then of Piqua, Ohio, married in June and took his bride to the convention.

The accompanying picture shows Mr. Crowe seven years later as he appeared in his office at Frankfort, Ind., one afternoon last month. He survived the charivaring and bear baiting led by L. W. Forbell of New York and W. M. Richardson of Philadelphia in June, 1912, and now has a fine growing family. Mr. Crowe's history includes Cincinnati as his birthplace in 1885, and an education with degree of A.B. from St. Xavier College in that city in 1907 and an initial business experience in traveling through the Southern states for a commercial house. He started in the grain business with Harry Kress at Piqua, Ohio, in 1910; later engaged in the grain brokerage business on his own account at Piqua until 1917 when he went to Buffalo entering into the grain commission business. A year later he took the management of the Buffalo office of the Urmston Grain Company which he continued until June 15, 1919, when he removed to Frankfort, Ind. He conducts a general cash grain brokerage business representing such firms as Armour Grain Company, New York and Buffalo offices; John T. Fahey & Co. of Baltimore; De Mollett Grain Company of Cincinnati, and Rosenbaum Brothers of Chicago.

Mr. Crowe admits that he likes the West. It was there that he was educated and started into business. It is there also that the greater share of the grain of the country originates and any one who settles in the central territory is right in the heart of things. He finds the possibilities of building a

business about 100 per cent perfect in his chosen location and invites his friends to visit his market whenever in that territory.

COARSE GRAINS AT PEORIA

Receipts of corn have been light in this market due to scarcity of cars and lack of motive power, and values have been showing some advance, notwithstanding the fact that local elevators are closed down on account of shortage of coal. The biggest portion of the arrivals here recently have been worked to other terminal markets and to outside industries, and there has been a fairly good demand for this cereal from these sources. No doubt a big business could be done in Eastern territory if conditions were favorable, and there is also some inquiry for export, but until the coal strike is settled and there is some assurance of a supply of coal forthcoming, business will continue to be restricted.

The same conditions exist in oats as in corn. Receipts have been light and prices advanced, with business curtailed by the conditions existing. Country offerings are very light.—*Mueller Grain Company, Peoria, Ill. Late December Letter.*

DID YOU KNOW THAT

—H. A. Foss, the genial weighmaster of the Chicago Board of Trade, has a real fruit farm in Michigan and that his grapes alone this year netted him over \$2,000.

—Frank J. Delaney, head of the Cragin Elevator Company of Chicago, was at one time city editor of the LaSalle (Ill.) *Daily Democrat*?

—The Kansas City Board of Trade began receiving New York Produce Exchange grain quotations on June 12, 1902, and before that the market relied on private advices from New York?

—Charles England, head of Charles England & Co., of Baltimore, Md., is a descendant of Joseph England who came from England in 1721 establishing with his brother the pioneer iron works in America?

—The matter of a line of light steel barges to carry grain from St. Louis to New Orleans was first proposed in 1897 and a sufficient sum of money was subscribed to make a demonstration of the idea by the construction of a typical barge but the project was abandoned on account of the opening of the Spanish-American War?

—The Calumet district, South Chicago, Ill., in the fall of 1899 had a total storage capacity of 14,500,000 bushels and that this amount will be almost equaled next February by one house with the completion of the Chicago & Northwestern Railroad Elevator with its capacity of 10,000,000 bushels?

—Great interest was aroused in January, 1897, at Chicago, over the news that all large concerns handling oats were accused of bleaching the oats with sulphur and all emphatically denied the allegation?

—J. F. Zahm & Co. of Toledo, Ohio, published a cartoon in November, 1896, showing a farmer mounted on a bull and riding rough shod over a bear towards a distant goal of \$1.00 wheat, the title of the cartoon being: "Will he reach it?"

CHANGES IN MEMBERSHIP

Baltimore.—The following new members have been admitted to the Chamber of Commerce: Thos. E. Carson, Daniel B. Brewster, and Geo. T. Snyder. The memberships of S. H. Gressitt, Allen G. Pinkerton and Lewis Dill have been withdrawn. Reported by Secretary Jas. B. Hessong.

Chicago.—New members on the Board of Trade are: R. M. Lockhart, Jr., M. F. Murphy, J. C. Knoche, J. H. VanDyke, E. S. Yeisley, H. C. Tweeden, D. H. Stark, W. M. Day, U. J. Smith, H. E. Howland, W. F. Murphy, H. J. Wendel, J. A. Power, Jr., and F. J. Coughlin. The memberships held by the Estate of Robt. Pringle, C. G. Bogart, Estate of J. M. Jenks, C. H. Albert, C. B. Cox, F. J. McClevey, T. E. Morgan, J. H. Hamilton, C. S. Bentley, D. R. Howland, A. J. Meents, M. L. Folk, C. M. Rich and A. J. Clark have been transferred. Reported by Secretary John R. Mauff.

Milwaukee.—Wm. H. Bartz, Hart C. Putman, M. F. Cudahy, Walter W. Freeman and H. F.

Shepherdson have been elected to membership in the Chamber of Commerce. The following memberships were transferred: Hugo Bremer, Walter S. McLaughlin, Patrick Cuday, deceased, August Rebhan and J. J. Quinn. Reported by Secretary H. A. Plumb.

Toledo.—E. W. V. Kuehn, and H. C. Sitzenstock have been admitted to the Produce Exchange, the latter on the certificate of W. J. Perry. Reported by Secretary Archibald Gassaway.

WHERE IS THAT KITCHEN TABLE?

Nobody knows how long Edw. A. Praeger, who travels for J. S. Bache & Co. of Chicago, and who left for Iowa a week ago, will remain away on his present trip. Sleuths are investigating the matter, as well as the scenery and topography of his residence; its approaches from the rear and whether there is sufficient shrubbery about the kitchen steps to afford concealment of an individual on a clear, cool, and probably moonlight winter evening. A dangerous enterprise is in contemplation but the rewards of successful accomplishment overshadow all the hazards of the undertaking by a very wide margin. So much for the prologue. The play, farce or tragedy as the outcome may prove, follows.

Mr. Praeger has a number of sick friends in Iowa. Not serious, but those effected with colds, sore throats, hoarseness and the like. So, thoughtfully mindful of the curative powers of certain beverages concocted of materials other than herbs and such, he arranged to carry a portion of this highly beneficent stock to the ill ones.

All went merry as a marriage bell until the Mississippi River was reached when certain Government officials boarded the train to look for contra-



THERE'S MANY A SLIP

band. Singularly enough they selected Mr. Praeger's valise for investigation. To Mr. Praeger's utter surprise, no healing antidotes were discovered. Then he recalled, with a shock of consternation, that the package of goods had been left at home on the kitchen table. Now, where is that table?

A CORN DECLINE IN JANUARY

May corn registered its season low of 115 on September 15 and since has operated mainly 122 to 129 with a bulge December 3 to 135%. The bulges have been dominated by continued presence of No. 2 and No. 3 corn at 145 to 155, signs that the worn-out corn visible of 1,500,000 may not reach 3 or 4 before late January, acute car shortage, belief that a big rush of coal will occupy the railroads when miners resume, and general faith in recent grain levels due to rise of wages and firmness of costs.

Oats are stimulated by the Mexican situation, 1,220,000,000-bushel crop, light visible of 17 and continued small primary receipts of 84 August 1 to December 1 versus 139 million last year. Recent export sales of 2,000,000 only moderate. Demand spasmodic. United States winter monthly outgo may not exceed 4,000,000. Arrival of winter stimulates feeding. Hog average is around 14 cents. There is talk of 12-cent hogs, but conditions do not point permanently below 13 cents. Continued food control is indicated.

Long distance corn oats sentiment contains ideas

of final fairly liberal appreciation. Financial news conveys the warning that sales of provisions and grain abroad are seriously hampered by the failure to arrange immediate large credits. Should corn and oats work higher in the December and early January period a late January downturn of fair dimension would be indicated when the winter receipts flow liberally to terminals.

The coal strike should end before December 12. Corn products mills will then resume and the general winter cash corn demand will be in force, indicating only minor visible corn accumulations for some weeks. Temporarily any further dragging on of the coal crisis would reduce packing outputs and industrial corn uses. Interfere with exports. From one angle the United States coal scarcity is a serious blow to all world trade.

In the matter of delayed receipts and a skeleton visible the corn situation reminds of last December when there was a May corn rise from 128 to 139. A rise to 142 in early January was followed by a sharp break to 111 on final arrival of larger receipts, a trade recession, guesses as to cheap hogs and high cost rows. A somewhat similar downturn may appear this season when the real receipts materialize. Winter wheat condition has evidently declined from 95 to 87 or 88 or near 39,000,000 acres. —E. W. Wagner & Co., Chicago, Ill. From late December letter.

TERMINAL NOTES

The Warner Grain Company of Winnipeg, Man., was recently incorporated with capital stock of \$400,000.

The United Grain Company of Duluth, Minn., has closed out its business after an existence of about 10 years.

The Kemper Grain Company of Kansas City, Mo., is completing arrangements to open a branch office at Wichita, Kan.

The Chicago Board of Trade closed at 12 o'clock during the coal strike and other markets signified their intention to do so.

A. S. Dumont of Dumont, Roberts & Co. of Detroit, Mich., was a visitor "on 'change" on the Chicago market in December.

The Johnson Grain Company has been incorporated at Spokane, Wash., with a capital stock of \$30,000 by C. E. and H. S. Johnson.

The Pioneer Grain Company, Ltd., Winnipeg, Man., has been granted authorization to increase their capital stock from \$500,000 to \$1,500,000.

Chris Peterson has left Block, Maloney & Co. of Chicago to go with Bartlett Frazier Company where he is assistant in the cash corn department.

C. T. Mears of the Itaska Elevator Company of Duluth, Minn., was recently elected a director of the Duluth Board of Trade to succeed John H. Ball who resigned.

W. N. Boyden, who has been for several years past in the office of W. H. Perrine & Co. of Chicago, on December 1 commenced representing the firm in central Iowa.

Earl Antrim, son of H. S. Antrim of Cairo, Ill., will leave after the first of the year for Honolulu where he has a lucrative position with one of the large concerns of that city.

The Flanley Grain Company has about completed its new grain elevator at Sioux City, Iowa. Its capacity is 130,000 bushels with handling capacity of 60 cars in and 60 cars out daily.

The Merriam Commission Company of Omaha, Neb., has opened a branch office at Milwaukee, Wis., with W. W. Freeman in charge. The office is located at 501 Mitchell Building.

E. M. White of the White Grain Company of Duluth, Minn., left with a party of Duluth business men early in December for Port Arthur, Ontario, to visit the business men of that city.

Marshall Hall of Marshall Hall Grain Company of St. Louis, Mo., and E. C. Andrews, president of the St. Louis Merchants Exchange, represented the St. Louis Merchants Exchange at a conference this month with Director General of Railroads Hines where the subject was urged of joint river

and rail rates as far East as Western Florida and into Louisiana and Texas. The United States Shipping Board was also urged to provide more ships to run to South American ports.

After his overseas service, A. M. Anderson is again representing the McCaull-Dinsmore Company of Minneapolis, Minn., in his old territory of northern Iowa, South Dakota and Nebraska.

The McCaull-Dinsmore Company of Minneapolis, Minn., has opened an office at Cheyenne, Wyo., under management of J. C. Kramer and a new office at Hastings, Neb., in charge of R. J. Moes.

The Franco-British Country Elevators, Ltd., Winnipeg, have been incorporated with a capital stock of \$100,000. J. M. Bessette, the well-known grain merchant of Winnipeg, is connected with the company.

The Sioux City Grain Exchange has admitted to membership the Trusler Grain Company of Emporia, Kan., which recently opened offices at 212 Exchange Building. V. B. Holt is manager of the office.

Capt. A. H. Gilmour is expected to shortly resume business on the Winnipeg Grain Exchange after five years of service overseas. Capt. Gilmour wears the Military Medal for gallant services at the front.

Sherman T. Edwards, formerly of Hales & Edwards Company of Chicago, Ill., recently assumed his new duties as superintendent of the cereal division of the Portland Flour Mills Company of Seattle, Wash.

J. J. Overholtzer, formerly on the road in Western territory for E. W. Wagner & Co. of Chicago, is now assistant manager in the Sioux City office of Simons, Day & Co. of Chicago, with Emery E. Stalker, manager.

B. C. Christopher & Co. of Kansas City, Mo., sold a car of wheat late in November for \$5,189.31 said to have been the largest sum paid this year for an equal amount of grain. The weight of the grain was 134,310 pounds.

Wilson F. Henderson, president of Lipsey & Co. of Chicago, a firm which failed about six months ago, has been suspended by the directors of the Chicago Board of Trade for failure to abide by an award in an arbitration.

Joseph Whyte of the Adams-Whyte Grain Company of Kansas City, Mo., has sold his interest in the firm and formed the Smith-Whyte Grain Company of which W. D. and W. E. Smith of Macedonia, Iowa, are members.

G. C. Thornsted, formerly traveling in the West for Bruce Bros. of Kansas City, Mo., has accepted a similar position with Taylor & Bournique Company of Milwaukee, Wis. He will travel from the Sioux City office of the company.

Stein, Alstrin & Co. will succeed the Chicago stock and grain brokerage business on January 1 of Block, Maloney & Co. of New York and Chicago. Offices will remain in the Rookery Building. The new firm is composed of L. Montefiore Stein, Frank E. Alstrin as general partners and Hubert J. Blum as special partner. All three members of

the concern are well known in Western grain and stock circles, Mr. Stein and Mr. Alstrin having been members of the old firm of Finley Barrell & Co., as well as their successors, Block, Maloney & Co.

The Rice Grain Company of Toledo, Ohio, sent out a Thanksgiving folder to the trade, illustrated with a picture of our national edible bird and expressing a few points for thankfulness. For these several points, ask "George."

E. G. Cool, Mason City, Iowa, the well-known representative of P. H. Shiffin & Co. of Chicago, in Northwestern territory, was a Chicago visitor the first part of December. Mr. Cool's visits to Chicago are always an event among his many friends.

James J. Fones, head of the cash grain department of E. W. Wagner & Co., Chicago, is prominently mentioned for the second vice-presidency of the Chicago Board of Trade. Mr. Fones has served the Board very ably as director during the past six years.

The Eikenberry-Fitzgerald Company of Cincinnati, Ohio, and The Squibb-Carter-Squibb Feed Manufacturing Company of Lawrenceburg, Ind., have merged their interests. The Cincinnati firm will have charge of the selling interests of the company.

The Warwick Grain Company of Denver, Colo., has opened offices at 334 Grain Exchange Building, Sioux City, Iowa, to carry on a general grain business in that market. J. L. McClintock, formerly with the Marshall Hall Grain Company at St. Joseph, Mo., is in charge.

George F. Foster, manager for H. L. Hawkinson & Co., of Duluth, Minn., has succeeded Franklin Paine, manager for the past 25 years of the Duluth Board of Trade Clearing House. G. W. Higby of Minneapolis, Minn., takes Mr. Foster's place with the Hawkinson company.

Joseph Simons of Simons, Day & Co., Leroy L. Winters of Hulburd, Warren & Chandler, Harry B. Godfrey of Rumsey & Co., and Edward W. McDougal of the Armour Grain Company, have been nominated for directors of the Chicago Board of Trade. The election is held in January.

Leslie F. Gates of Lamson Bros. & Co., Chicago, who has made a most popular and efficient president of the Chicago Board of Trade, has been asked to serve for another year. He has been a member of the Board for 14 years and an official for seven. There will be no opposition to his re-election.

The St. Louis Merchants Exchange was represented at the National Rivers and Harbors Congress at Washington, D. C., December 9 to 11, by Charles L. Niemeier, vice-president of the Exchange; Eugene Smith, secretary; Marshall Hall, F. W. Seele, Thos. B. Teasdale, John D. Ballard and John L. Messmore.

The right of the Chicago Board of Trade directors to fix a maximum price on corn was established by Judge Williams in the Municipal Court early in December in the case of W. A. Thomson, a grain dealer at Louisville, Ky., against Thomson



Been a tough "game" right along—First one, then the other wouldn't "play," but there's bound to be better "playing" soon—Be optimistic.—J. F. Zahm & Co., Toledo, Cartoon of December Red Letter.

& McKinnon, to recover the difference between \$1.65, the settling price for July corn, fixed by the Board of Trade directors on July 5, 1917, and that of \$2.40, the price for car lots in the Chicago market at the close of July. This was the first case brought on the regulation made by the Board as a war measure and the directors of the Board were much pleased over the decision.

The Corn Belt Elevator Company recently incorporated at Peoria, Ill., announces that it will build a 500,000-bushel elevator to be completed for the crop of next year. It will be built on the site of the old Iowa Elevator burned in 1916. The officers of the company are: Louis Mueller, president; A. W. Dewey, vice-president; Homer Dewey, secretary.

H. G. Pollock, head of the Pollock Grain Company of Middlepoint, Ohio, writes us under recent date as follows: "We have moved our wholesale grain and hay offices from Lima, Ohio, back to our old home town of Middle Point, Ohio, where we have built new up-to-date and modern offices. We ask you to change your mailing list to Middle Point, Ohio. Discontinue sending mail to us at Lima, Ohio, as that office has been closed up. There is no change in the personnel of our firm, same managers, bookkeepers, stenographers and other office help. All will be very glad to serve you in the future better than in the past. We will

devote our entire time and attention to the buying and shipping of ear and shelled corn, oats, hay and straw in carload lots."

The Manufacturers and Wholesale Merchants Board of the Cleveland Chamber of Commerce will leave Cleveland February 7, 1920, on its forty-ninth trade extension excursion during which it will visit 22 Western cities. Very many members of the Grain and Hay Exchange are members of this body, who may be expected to visit their friends in the grain trade during the trip.

James A. Noble, recently of the Illinois State Grain Inspection Department, has been appointed chief sampler of the Chicago Board of Trade in place of Henry Ulrich who passed away about a month ago. Mr. Noble has been connected with the state inspection department for about 30 years and for the past few years has been chief supervising inspector for the state of Illinois.

Burton, Runge & Morrison, Inc., have been organized at Baltimore, Md., to carry on a general grain business. The members of the firm are Herman Runge, Geo. E. Morrison and L. M. Bruton, the first two named being well known among the grain trade of Baltimore. Mr. Bruton was until lately connected with the Baltimore branch of the United States Grain Corporation. The firm has offices at 119 and 121 South Calvert Street.

a complete research laboratory where their staff of chemists will be able to study and to produce results of great value to the Dixon Company and to its world-wide clientele.

Fairbanks, Morse & Co., whose scales, gas and gasoline engines, motors, etc., have a world wide fame, will start the erection in Beloit next year of the most modern foundry in the world. It will equal in size and output any foundry on the globe. This great structure will, when completed, be 900 feet long, 550 feet wide, and will contain 495,000 square feet of floor space. This structure, including storage of flasks, iron, sand, etc., which will also be under the roof, will cover 11 acres of ground. It will be located directly to the north of the present power house, bordering the River Road. The completed structure will have an ultimate capacity of 350 to 400 tons of gray iron daily. This big foundry will eventually employ 1,500 additional men; and 1,500 more men will be required in other departments of the factory to meet the increased production that will result. This means an addition of 3,000 workmen for the great plant on the hill, an increase of 75 per cent in its industrial army. Fairbanks, Morse & Co. alone will then employ 7,000 men, and with other industrial expansion, Beloit's population will jump to 35,000 as quickly as homes can be provided. Plans and specifications for the big foundry are rapidly nearing completion. Raw material for its construction will be placed on the ground this winter and work will be begun as soon as the frost is out of the ground. The officials of the company decline to give out figures as to the cost, but it is hinted that at least \$1,500,000 will be expended.

TRADE NOTES

The Spenst Grain Cleaner Company of Langdon, N. D., has been incorporated with a capital stock of \$15,000 and will manufacture the Spenst Grain Cleaner.

The Chicago office of the Invincible Grain Cleaner Company of Silver Creek, N. Y., has been moved from the Webster Building to 538 Postal Telegraph Building. J. N. Adler is in charge.

S. H. Stolzhus recently with The Wolf Company of Chambersburg, Pa., has become Southwestern representative with headquarters at Kansas City of Nordyke & Marmon Company of Indianapolis, Ind.

The Burrell Engineering & Construction Company of Chicago, Ill., will complete with January 1 one of the largest year's business in their history with Burrell built houses erected in an unusual number of different states.

The Integrity Mutual Casualty Insurance Company of Chicago has opened a branch office in the Boatmen's Bank Building, St. Louis, Mo., to cover the Southern part of Illinois and the Eastern half of Missouri. Mr. Heath of the home office will have charge. The company is establishing branches in nearly every state for the purpose of keeping in close touch with policyholders and facilitating business.

The Weller Manufacturing Company of Chicago, Ill., reports a great success in the introduction of their Weller Rotary and Continuous Dryers and Coolers for drying, cooling and conditioning wheat, corn, cornmeal, oats, barley, beans, flour, etc. It will be remembered these machines were brought out some time ago and are the product of experimenting, designing and developing for many years. They not only build their regular types of driers and coolers but build special types for special conditions.

"The Clutch that Clutches" is the title of a 16-page booklet on the subject of Medart Friction Clutches just issued by the Medart Patent Pulley Company of St. Louis, Mo. The advantages of friction clutches are shown and the power saving and economy factors that accompany their use. It is also shown that the increasing use of this class of clutch under the "safety first" movement, has eliminated countless fatalities to workmen through the ready facility afforded in quickly disconnecting power on the moment of necessity in case of accident. All types of the Medart Friction Clutches are described and illustrated and there is also enumer-

ated the Medart entire line of power transmission machinery. Not only is the booklet sent anywhere on request but the company invites requests for their Catalog No. 26 and Supplement No. 1A, which should have a place in every mill and elevator plant.

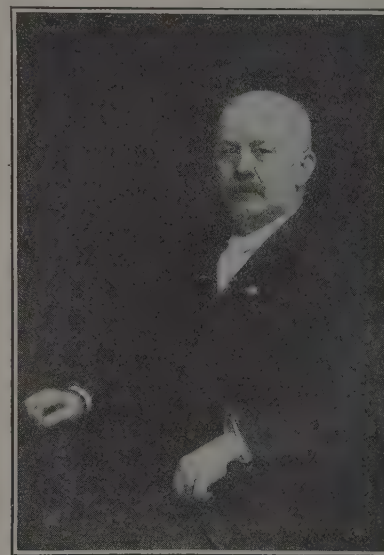
New calendar leaves for 1920 for the Southgate Desk Calendar are being distributed this month to their friends and patrons by the Weller Manufacturing Company of Chicago, Ill. This calendar seems to exist in perpetuity, for since the Weller company adopted the idea several years ago they have sent renewal leaves with the approach of each holiday season. It is a most handy memorandum, desk calendar and without doubt countless recipients of the gift pour our hearty thanks each year to the donor.

Grain dealers and millers everywhere will be interested in a little booklet prepared by the Hess Warming & Ventilating Company of Chicago, Ill., bearing the title "Grain Testing and Sampling Apparatus." All the equipment in the booklet are devices or machines in daily use in the up-to-date elevator plant. Illustrations and descriptions are given of the official Brown-Duvel Tester for electricity, alcohol or gas; the Hess Improved Brown-Duvel Tester with Copper Flasks; the Hess Moisture Tester Scale; the new Torsion Tester and Percentage Scale; the Bucket or Kettle Grain Tester; the Boerner Sample Mixer or Splitter; Dockage Sieves for corn and for wheat. Full directions are also given for setting up and testing the Brown-Duvel Moisture Tester as well as directions for use.

A place of interest and study is to be found in the newly established research laboratory of the Joseph Dixon Crucible Company of Jersey City, N. J. It is located close to the works but far enough away to avoid the noise and dust and be free from the vibrations of the factories which are so likely to disturb the accuracy of the delicate instruments. The building is a large 20-room house, the old-time manse of a Scotch Presbyterian Church wherein no cushions or heat or music were permitted. In this very much larger and more complete laboratory, they will be far better able to analyze all their clays, graphites and other materials that enter into the Dixon crucibles by the Dixon Company. They will also be able to make microphotographs of all materials that require microscopic study. In other words, they will expect to have what they have started out to have:

AN OLD FRIEND PASSES

It is with profound regret that we announce the death of A. S. Garman, so long the representative of Huntley Manufacturing Company, in the Ohio-Indiana territory. This occurred at his home in Akron, November 9, 1919. Mr. Garman had been in poor health for some time but had taken care of



THE LATE A. S. GARMAN

his territory almost up to the day of his death. However, he succumbed to a stroke of paralysis, his death following in a few days.

Mr. Garman was born in Wayne County, Ohio, December 28, 1852. At an early date in life, he entered the milling game, starting in a small mill in Fairview, Ohio. Later, he became associated with mills in Massillon, Mansfield and Akron, Ohio. In 1887 he became engaged in the sale of McAnulty Roller Mill Feeders and in 1888 he associated himself with the Huntley Manufacturing Company, of Silver Creek, N. Y.

Continuously since that time, Mr. Garman has represented the "Monitor" line of cleaners. Probably no man in the trade today has the personal acquaintance and the friends among the millers, grain dealers and canners of the United States, that Mr. Garman had at the time of his death. His was

a familiar figure at the national and state gatherings of the various associations connected with the trade. He will be greatly missed.

Mr. Garman was not only a salesman of rare ability but he was also of an inventive turn of mind and suggested many of the improvements now in common use on grain cleaners.

GRAIN ELEVATOR ACCOUNTS SHOW CONDITIONS AND COSTS

There is more to a balance sheet than a balance—and though grain elevators may achieve a "balance sheet" it may not tell them what they need to know, and to quote a popular phrase, "it doesn't mean anything" after they get it. Just as there are "balance sheets" and balance sheets so are there different forms of accounting for grain elevators, as the Bureau of Markets, United States Department of Agriculture, has found in working out a system of bookkeeping for grain elevators.

In the development of the present system, several points have been given attention which have not been previously considered. One of the most important of these is the income tax. Realizing the difficulties which attend the preparation of such returns by the layman, every effort has been made so carefully to outline the bookkeeping procedure that it will make the preparation of reports for the Income Tax Bureau much less a problem fraught with uncertainty than is now the case.

"The adoption of a uniform system of accounting should be of benefit both to the companies and to the men employed by them as managers," says the Bureau of Markets, "but the simple keeping of the records is not sufficient. It is necessary that the manager and directors of the elevators should make use of all the information which a good accounting system furnishes. The grain and merchandise reports and methods of arriving at cost of operation through the cost analysis are valuable features of any accounting system. If the information obtained from such a system of accounting is made available to the stockholders and others interested, and they are thus assured that that business of the elevator is being handled in a competent manner and that detailed information regarding it can be furnished at any time, it will tend to strengthen the financial position of the company with those who extend credit to elevators during the season of crop movement."

Persons interested in grain elevator accounting may obtain copies of Bulletin 811, "Bookkeeping for Grain Elevators," which has just been issued by the Bureau of Markets, United States Department of Agriculture, at Washington, D. C. Any elevator installing the system of accounts outlined in this publication may refer to the Bureau of Markets any questions regarding its installation or operation. The present edition of this bulletin supersedes Bulletin 362, and contains changes made since the passage of the Grain Standards Act, and also several features suggested by the practical operation of the system during the past few years.

BOOSTING THE BEAN

Within recent years the soy bean has been given considerable attention in this country as a feeding crop. It grows well over a large part of the country, builds up the soil and furnishes a rich protein diet for cattle and hogs.

More recently, as the bean has become more popular it has been raised extensively for seed, the threshed straw having considerable feeding value and the seed making a good cash crop.

The Department of Agriculture has just announced its perfection of a method of making the soy sauce which up to this time has been imported from the Orient. This sauce is used in a great variety of ways and is an ingredient of almost all of the prepared table sauces. When this process is put on a commercial basis it will provide a market for a large volume of soy beans, and the Government, through a recent bulletin, is advising the best means of threshing the vines and the proper manner of keeping the beans from spoiling.

Meeting Labor Half Way

A Discussion by Prominent Grain Dealers of an Important Subject

THE article "Solving the Labor Problem" by C. C. Isely, in our last issue, touched upon so important a topic that we called it to the attention of a few of our readers, asking their opinion on the subject discussed by Mr. Isely.

It will be gratifying to the trade to learn that these prominent men in the grain trade are also in the forefront of the industrial leaders of the country in their grasp of essential problems and their forethought in meeting them. The following letters contain food for thought and we urge a careful reading and further discussion.

FIXING THE RESTLESS LABORER

Editor American Grain Trade:—Answering yours of the 18th on the subject of "Solving the Labor Problem," we have not had much trouble with the labor problem until the last six months. During the war every man felt it his duty to work steadily and faithfully, but since last spring our men have been restless and shifting, moving from one job to the other, and we have advanced their wages four or five times in as many months. We also have found that they fell down about 25 per cent in the amount of work accomplished in comparison with last year.

Our other employees, namely managers of our country elevators, have been faithful, and, of course, we have advanced their wages. All of our men share in the profits and one of them has some stock in the company with the probability that more of them will buy stock when they are able.

We also pay our laborers a 5 per cent bonus at the end of the year. We feel that we can afford to do it, and it has the effect of keeping our men on the job until the end of the year which is a decided advantage to us.

Yours truly,

THE H. A. HILLMER COMPANY,
Freeport, Ill.

A COMPREHENSIVE PLAN

Editor American Grain Trade:—Your favor of November 18 reached my office during my absence in Florida on a fishing trip. I have just returned and hasten to reply to same.

We have for several years had in force a profit sharing arrangement with our employees, which has worked out very satisfactorily indeed. A certain per cent of the profits each year is set aside for distribution among employees who have been with the company one full year previous to the date of distribution. This distribution is made pro rata on wages drawn during the previous year, and has varied from as low as 6 per cent in lean years up to 31 per cent of the wages drawn by the employees. This, as you will recognize, is quite a handsome addition to the compensation.

Besides this, we put in force a year ago a system of old age, disability and sick benefits, and life insurance, of all employees who have been with the company for a period of two full years. This arrangement provides full wages for the first six months of disability on account of sickness, and for half wages after the expiration of the first six months during the entire period of disability. It also provides half wages for life for old age or permanent disability.

The insurance feature provides, in the event of the death of an employee, that one full year's salary shall be paid to his family or beneficiary, either weekly or monthly, the same as the employee had drawn the year previous to such demise. We find that this arrangement has given general satisfaction among our employees as they feel a degree of security that did not exist before the installation of this plan.

We have an arrangement by which employees whom we desire to have stock may purchase same at practically book value, giving therefor their notes at 5 per cent interest, with a special contract providing that all dividends and earnings of such stock shall be applied to the payment of said

notes. Several of our employees have availed themselves of this opportunity, and are consequently interested the same as any of the other stockholders of the company. Yours truly,

CRABBS REYNOLDS TAYLOR COMPANY,
A. E. REYNOLDS, President.
Crawfordsville, Ind.

THE BONUS SYSTEM

Editor American Grain Trade:—Your letter of the 18th inst. was received in the writer's absence. Have not yet had time to read Mr. Isely's article, but have previously discussed this subject with him and think I fully agree with his ideas of profit sharing.

We have never been able to establish a profit sharing scheme in our business, but for several years past we have paid our employees a bonus at the end of the year based on their annual salary. Employees understand that this will be paid if the business shows a profit for the year. It stimulates loyalty and our labor turnover is slower.

We have just read your editorial in which you comment on Mr. Isely's article, and fully agree with you that the employer will not be able to dismiss labor troubles in the future as he has in the past, nor do I think he should be able to. What will it profit a man if he build a great business and is unable to operate it for lack of friendly co-operation with his co-laborers?

Yours truly, BOSSEMEYER BROS.,
By E. Bossemeyer, Jr.,
Superior, Neb.

SHARING PROFITS

Editor American Grain Trade:—Your favor of November 18, calling attention to the article by C. C. Isely of Dodge City, Kan., on "Solving the Labor Problem" in your issue of November 15, received. I realize that conditions over the country at the present time amount to almost a national calamity in the matter of the labor problem.

The writer has been in business for 34 years and about 29 years of that time operating for himself, being employed in a clerical way the other five years, and during that time I have tried a number of plans, most of which have worked out very satisfactorily and I will mention two or three of them.

My first thought has always been to get my help interested in my business and the only way this can be successfully done is for them to have a financial interest in it. One year I offered two employees 10 per cent net of the profits of a lumber and grain business in which they were working with and for me. I could notice throughout the year the interest they took in the sales of grain and in the prevention of loss by deterioration of lumber and building material during that year, for each of them realized that every dollar extra made, either in the marketing of grain or saving in any way was good for 5 cents to them. At another time I purchased a lumber and grain business, secured an experienced lumberman to work for me, and I sold him a quarter interest in it without a dollar down and today he has paid for and owns that quarter interest. At another point I have a man running an elevator for me on a stated salary and I have agreed with him that beyond a certain profit, which represents a fair interest on my investment, over that, I will divide 50-50 with him on the profits above operating expenses and the return on my investment, and I am glad to say this year he will get a bonus of \$300 to \$400, which certainly makes him interested in the success of the business.

I have also operated a farm on a mutual profit sharing basis, owning the farm while the man on the farm furnishes the labor, horses and machinery and have divided the proceeds from the sale of the farm 50-50. Having in recent years employed this plan in various ways in getting my help interested I have experienced very little difficulty with the help and labor problem.

The coal situation today which is talked of by

all, seems to me could be solved if both sides would take a fair view of the situation and if the operators would allow their employees a reasonable advance which they are certainly entitled to, as the miners' wages did not advance during the war as other wages were advanced. Thus if the operators would agree at certain periods of the year, say semi-annually or annually to give their employees a reasonable per cent of the net profits of their business, they would find that the miners would take more interest and care of the mines and equipment thus saving on operating costs and no doubt after giving their employees a reasonable bonus they would have the goodwill of their employees, and their net profits would probably be nearly as large as on their present plan.

I have given this considerable thought in the past few years and I am firmly convinced that employers and employees will get along more harmoniously when they work somewhat at least to each other's interest instead of as at present the employer endeavoring to get all the labor he can for the least money expended and the employee endeavoring to secure the most money for the least amount of labor expended.

Yours very truly, B. L. CHRISTY,
Viola, Ill.

LABOR ON CAPITAL BASIS

Editor American Grain Trade:—Your letter of the 18th at hand and contents noted. Note you call my attention to the article of C. C. Isely in the November 15 issue of your splendid paper, and I have read this with a great deal of interest.

We, like everyone else, are up in the air in regard to the outcome of the present agitation for co-operation between employers and employees in manufacturing and mercantile establishments. No doubt some good will grow out of it.

However, I have some old-fashioned ideas of my own in regard to this question, and have experimented a little with our own organization. Of course, our organization is small and we don't have many men working in our different plants, most of them being run by one, two and three men.

About 10 years ago we put in an arrangement that has worked very satisfactorily with us and we believe has been satisfactory to our employees.

At that time we put the salary of our managers of our branch houses on the same basis as our stockholders. That is we paid them an annual dividend on their wages to exactly the same amount we paid our stockholders. For instance, if a man was drawing \$1,000 a year and we paid a 6 per cent dividend to our stockholders on our common stock, our manager received \$60 per year on his salary. The only stipulation being his plant must show a profit for the year, of not less than the dividend to be paid not only to himself but to the stockholders.

Two years ago we extended this same proposition to our office help in our main office, this applying to anyone, who had been in our employ for two years. That is to our office help, managers and superintendents we pay the same dividend as to our stockholders.

Our different managers and the office help seem to appreciate the dividend they are getting and we believe it has been a very profitable arrangement both to themselves and ourselves.

It might be interesting to note that since we put this plan into effect, not a single plant has failed to make the required dividend each year. We think it has really cost us nothing and it has made our managers more careful about taking care of the products we handle and less apt to employ unnecessary labor and keep our plants cleaner and we believe we have had less danger of fire. As since we put the plan into effect, we have not had a fire in any of our 10 houses.

In a few instances we have paid a bonus but we don't like it and we don't believe our help likes it either. They don't appreciate it and think if they were entitled to it, more money should have been paid to them each week or month as the service was rendered.

We doubt very much the propriety of putting peo-

ple on the Board of Directors, who have no direct money interest in a concern. We have never tried it and we don't think we shall.

We might say since we inaugurated this system 10 years ago, we know of two or three other elevator concerns, who have copied our plan and they state it is working out very satisfactorily. I think one or two banks in this city have also adopted this plan.

It does look to us as though it is a fair proposition. The men who devote their lives to our business interests should have some little recognition outside of the salary they receive. Being stockholders in a way to the extent of their year's earnings, we think it adds dignity to their position and they feel that they really belong to the same family as the other stockholders.

With very best wishes, I beg to remain,
Yours very truly, P. E. GOODRICH,
Winchester, Ind.

EXPERT OPINION ON EXPLOSIONS

The Underwriters Grain Association of Chicago has issued reports covering the grain dust explosion in the elevator at Port Colborne, Ont., and the Murray Elevator at Kansas City. These reports are the result of thorough investigation by the Association's engineers. In regard to the Port Colborne disaster, the report says:

"It is suggested that owners and operators of elevators consider this subject through their associations, with a view of presenting proper recommendations to the boards of trade or other organizations which regulate grain handling equipment, for the reintroduction generally of air suction on grain handling machinery. Grain owners have rights in the matter of weights and grades which deserve consideration, but when considered against safety to life and property the decision should go in favor of permitting air suction apparatus under uniform regulations.

"It is suggested such systems be attached to all elevator boots and heads, all garners, if possible to all scale hoppers, to all fixed discharge spouts and over all belt conveyors at fixed belt loading points. It is not feasible to attempt air suction on movable apparatus. The convenience of floor intakes as a means of removing dust and sweepings is too well known to need comment. It is desired that elevator operators and the grain trade generally actively take cognizance of this question, with the idea of restoring the use of air suction systems to dispose of this dangerous dust and prevent the rapid accumulation of it now common in even the best regulated houses."

Commenting upon the results developed by the Kansas City disaster the Grain Association engineers say:

"The result here, coming on top of the blow up at Port Colborne, Ont., recently reported, the blow up in a small feed elevator in Milwaukee and one just reported from Buffalo, are conclusive as to one thing, which is that grain elevator dust is as dangerous in its possibilities as so much gasoline, and its presence is not to be tolerated. Explosions of this sort have been common in terminal elevators for years, but heretofore they have come in combustible elevators and the fires which followed have destroyed the property and have gone down in the history of the business as fires. The result has been to obscure the importance of the explosion hazard itself and elevator operators, especially those with combustible houses, have felt that it was a question of guarding against fire. Those with fireproof houses have concluded they were immune, and a general attitude of tolerant indifference toward dust, dirt and fire hazards is noticeable in many of those properties.

"Flour mills used to have disastrous blow-ups, all traceable to indifference to the accumulation of dust. They still suffer from occasional puffs, but it is to be noticed that, following the destruction of the Washburn Mill in Minneapolis in the '80's, the flour mill trade woke up. They tightened up the apparatus, did away with dangerous machines, put on regular sweepers and have steadily overcome

the hazard. In the meantime the elevator trade has stood still. The only contribution to increased safety is the so-called fireproof elevator, and with its advent some concerns seem to feel that casual care is all that is necessary, and proceed to cut off the expense represented by regular sweepers.

"We feel also that boards of trade, elevator operators and state warehouse commissions have a direct share in responsibility for any further losses of life or property arising from this danger unless they take prompt and radical action to remove the present restrictions on the use of air apparatus for the removal of this material as it is formed in the process of handling. It stands to reason they would not permit gasoline to accumulate in a similar way about elevator premises, even if collecting it did change weights on grain handled. It is only reasonable to suggest that action as radical be taken to remove dust from grain and prevent its accumulation in elevator premises."

COMMUNICATED

RUNNING FULL TIME

Editor American Grain Trade:—We are running full time. The buckwheat crop is a good one; also the winter wheat is very good, but the spring wheat crop is very light on account of the late wet spring. All other crops are good.

Yours truly, J. W. BAKER,
8 South Street, Binghamton, N. Y.

FROM A NEW TEXAS MARKET

Editor American Grain Trade:—Waco has about completed the movement of one of the heaviest crops of small grain ever raised in this territory. The Waco Grain Exchange began operation about the first of June of this year, and has inspected practically 5,000 cars of small grain, mostly oats and wheat.

The movement of these commodities is practically over, but the shelling of ear corn will soon be in heavy blast. We expect a very heavy movement of corn in and out of this market.

Yours truly, WACO GRAIN EXCHANGE,
M. R. Ford, secretary.

A NEW USE FOR BARLEY

Malt sugar sirup is a brand-new sweet which has arrived on a commercial scale at the psychological moment to relieve the sugar shortage, say the specialists of the Bureau of Chemistry, United States Department of Agriculture, who have investigated various substitutes for sugar. In addition to being a sweet, malt sugar sirup has a delicious flavor, somewhat resembling that of honey, which adds much to its palatability and value as a sugar substitute.

While malt sugar has long been known to chemists, its production on a commercial scale is only beginning. Two factors have stimulated its production recently. The shortage of sugar has developed a market for it, and the recent prohibition law has made available both the raw material and the machinery needed for its manufacture. Malt sugar sirup is made from the same grains as beer, and may be made from corn or potatoes or any plant containing starch. Barley, which was used until recently in the manufacture of beer, can be used now to produce malt sugar sirup.

Breweries, with very little change, can be used and are now being used for its manufacture. Up to a certain point the process for making malt sugar sirup is the same as the process for making beer. Evaporating pans is the principal additional equipment required by breweries to become malt sugar sirup factories.

Malt sugar sirup looks very much like maple sirup. It can be used for everything that cane sugar is used for. While its use on the table may not be quite as convenient as sugar, it is a most excellent substitute for table use when sugar is not to be had, as it not only provides sweetness but is equal to sugar in food value. For cooking

and baking purposes and for making candy it is not only equal to sugar in convenience and food value but is superior for some uses because it will not so readily crystallize.

Malt sugar sirup is now being sold in large quantities to commercial bakeries and candy and soft-drink manufacturers, who use it in place of sugar. The wholesale price as quoted in recent advertisements in trade papers and elsewhere is from 7 to 9 cents per pound in barrel lots.

WHEAT TRAVAIL OF THE ANTIPODES

When the story of Australian wheat for the five years following the outbreak of war is written, it will be one of the most interesting chapters of cereal history. Last April Australia had about 180,000,000 bushels of wheat still to ship, the surplus harvest of four years. In that time 160,000,000 bushels had been shipped.

It was carrying and caring for the surplus that could not be shipped on account of shortage in transportation that strained things. In order to make advances on three harvests and pay the guaranteed price on the fourth, huge sums had to be furnished by the Australian banks. Even last April the advances still amounted to about \$100,000,000. And with the ordinary method of taking care of wheat in Australia, these was always serious danger of loss from insects, mice, etc. Much of the wheat did deteriorate. Not long since, over 2,000,000 bushels of wheat were sold to Japan at a low price. This wheat had been stored 29 months and had been through two mouse plagues and was infested with weevil.

Nearly all the wheat of the harvest of 1916-17 required treatment before shipping. But it has been found that the wheat of 1917-18 requires no treatment. To carry out the work of fumigating the infested wheat, 12 plants have been erected with a working capacity of 750,000 bushels a week. It has been found in taking down the huge stocks of piled wheat, that the wheat is often in better shape than appearances indicated. Weevil damage was found to be confined to the row of bags on each side and the top of the stock. The South Australian system of "maltroiding" the stocks of wheat, had prevented large losses of wheat from weevil and spoiling that would have occurred otherwise.

GRAIN AND FLOUR MOVEMENT

The United States Grain Corporation issued on December 8 its thirtieth weekly bulletin covering the wheat and wheat flour movement throughout the United States for the week ending November 28, in comparison with the figures for the same period a year ago. The figures given out were as follows:

| | 1919 | 1918 |
|---|----------------|-----------------|
| Wheat receipts from farms, bushels | 11,141,000 | 15,516,000 |
| Wheat receipts from farms, previous week, bushels | 13,531,000 | 13,311,000 |
| Wheat receipts from farms, June 27 to November 28, bushels..... | 606,330,000 | 587,754,000 |
| Flour produced during week, barrels..... | 3,179,000 | 2,739,000 |
| Flour produced previous week, barrels..... | 3,147,000 | 2,747,000 |
| Flour produced June 27 to November 28, barrels | 61,897,000 | 51,194,000 |
| Total stocks, wheat, all elevators and mills, bushels | 274,412,000 | 253,922,000 |
| Total stocks, wheat, all elevators and mills, previous week, bushels..... | 283,841,000 | 271,485,000 |
| Change for week, bushels | 9,429,000 dec. | 17,563,000 dec. |

Exports of wheat and flour, July 1 to November 30, amount to 69,692,000 bushels of wheat and 7,584,000 barrels of flour, making a total equal to 103,920,000 bushels of wheat compared with 79,606,000 bushels of wheat and 7,389,000 barrels of flour last year to November 30, making a total equal to 112,859,000 bushels of wheat.

THE steamer *Grant Morgan* recently left the Head of the Lakes for Port McNicol carrying 504,907½ bushels of wheat valued at \$1,146,500. This is stated to have been a larger cargo than the pre-

vious world's largest cargo carried in any one vessel, the record for which was held by the same steamer.

POWER IN A COUNTRY HOUSE

To find a perfect power plant for a country house used to be one of the chief problems of the operator. Not infrequently in the early days, elevators were located on streams to take advantage of water power even where the stream was not navi-



PLANT OF FARMERS CO-OPERATIVE COMPANY, COLFAX, ILL.

gable. Steam finally became the universal power, but in small units, such as elevator power plants require, steam engines are far from economical.

As elevator building improved, however, power plants more than kept pace, until today there is a surprising degree of efficiency in the 10 to 50-

Ill., started some two years ago with a very definite idea that, by having efficient equipment to start, even at the expense of more money, a saving could be made in the end. Although the elevator, shown in the illustration, has a capacity of only 30,000 bushels, it is of concrete construction and well planned and furnished.

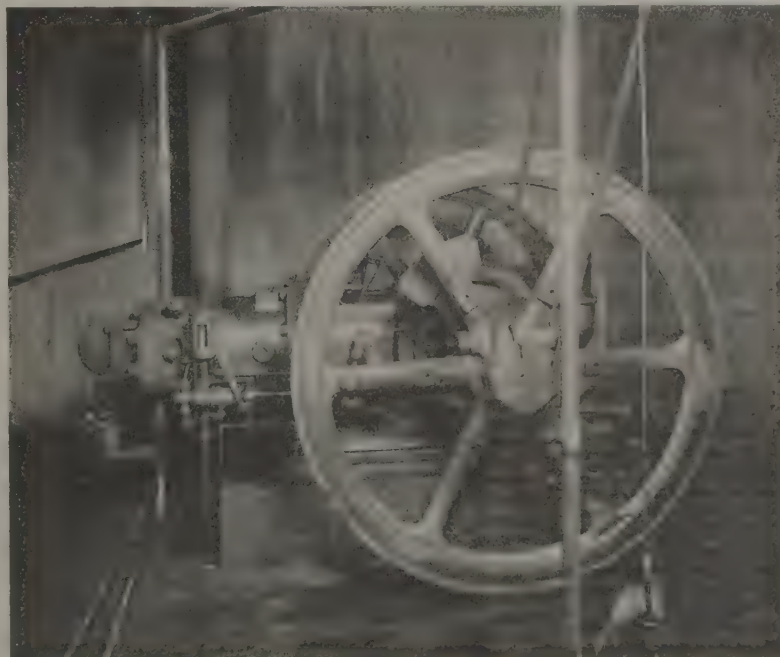
The question of power was quickly settled by the selection of the 20-horsepower Fairbanks-Morse Type "Y" Oil Engine. This has never failed to deliver plenty of power to the elevator and cleaner and, as the illustration shows, saves space, is easy to keep clean, and in addition is simple to operate and requires but little attention when running. During this difficult fuel crisis, when steam and electric plants are suffering for the lack of coal, the little old oil engine keeps right on going without having to worry about the miners or the operators or the Fuel Administrator, and it doesn't worry very much about John D.

GRAIN SUPPLY OF DENMARK

The American Commercial Attache at Copenhagen has forwarded to the Department of Commerce the translation of an article on the supply of grain in Denmark, which was published in the "Berlingske Tidende," as follows:

To correct misleading reports in circulation in regard to the corn supply in the country, the Food Administration has made public the following information:

There is no oversupply on hand, and very likely it will be quite necessary to continue the economy in the consumption of grain. The present grain budget is based upon the expectation of having 775,000 tons. Up to the first of March, only 703,000 tons had been obtained, and during March and April, about 5,000 tons are expected. The total will therefore be at least 67,000 tons short of expectations. The fact that Denmark has secured permission in England to receive for reshipment to Norway 100,000 tons is of great importance; in fact, a necessity. On the other hand, however, 50,000 tons necessarily had to be given over to cattle in order to improve the yield of milk, and as the swine have been given more than their allotted share, it can be readily understood that we shall face a shortage. Moreover, when Schleswig



FAIRBANKS-MORSE TYPE "Y" OIL ENGINE

horsepower plants that are required to operate the simple machinery found in most elevator plants. In fact, so economical have these small engines proved in comparison with the work performed, that where supplementary machinery is used in a house, the leading engineers are advocating the installation of two small units rather than one of larger capacity, then during the short season when a corn sheller or attrition mill is operated, the two engines can work together and at other seasons when less power is required one engine will be sufficient without waste of power.

The Farmers Co-operative Company of Colfax,

is reunited with Denmark this summer, it will be necessary to send her 100,000 to 200,000 tons of grain for seed. For these reasons the shortage is certain, and energetic attempts have been made recently to secure sufficient tonnage to bring in grain from North and South America. It has been possible to arrange for the pressing needs, but the arrival of shipments is uncertain.

SPEAKING of the Australian wheat crop and the outturn of South Australia Reutter cables that it is believed that other states of the Commonwealth will be required to import more than the 10,000,000-bushel surplus of South Australia next season.

The International Grain and Hay Show

Remarkable Exhibit Sets a High Mark For Future Contest—List of Awards

WITH upwards of 2,000 samples of hay, corn and small grain from 29 states and four Canadian provinces and displays of an educational nature from 12 states on exhibit, the most successful and largest International Hay and Grain Show ever held in the United States was conducted at Chicago, November 29 to December 6, in connection with the International Live Stock Exposition. A great majority of the 300,000 persons who saw the greatest live stock show in history this year gave it a permanent position and placed it practically on a par with the live stock show.



PETER J. LUX AND HIS PRIZE CORN

There were 720 20-ear samples of corn, 125 half-bushels of oats, 240 displays of wheat, and hay from a dozen states, besides 65 boxes of rye and 100 of barley. Competition was keener than it has been at previous shows and more interest was attached to every department.

The feature of the grain show was the battle between four Indiana men for premier honors of the corn world and it was only after a hard fight that Peter J. Lux of Shelbyville, Ind., won first and the 1919 corn king's title of United States on a 20-ear sample of Johnson County white corn.

He fought it out with W. J. Ulrey, J. B. Hamilton and C. E. Troyer, all Hoosiers. Lux's sample of corn was of high type, each ear weighing 21 ounces, measuring 10½ inches in length, eight inches in circumference and having 20 rows of kernels. Lux was awarded the \$250 trophy given by the National Association of Corn Products Manufacturers.

John H. Roads, of Bainbridge, Ohio, won honors in the single ear class on a wonderful ear of Boone County white corn. He defeated W. R. Butler, of Kokomo, Ind., who showed the champion yellow ear of the show. Roads got the \$250 trophy given by the Grain Dealers National Association.

Swartz Bros., of Waukesha, Wis., carried off sweepstake honors in the hay show with a sample of alfalfa, and won the \$250 trophy given by the Hay Dealers National Association.

Sweepstakes in wheat went to J. C. Mitchell, of Dahinda, Saskatchewan, Canada, on hard red spring wheat.

L. L. Young, Nampa, Idaho, won sweepstakes in the barley classes on six-rowed barley. No sweepstakes were awarded on oats and rye.

The Chicago Board of Trade gave \$10,000 in prizes and considerable credit must be given that organization for the part it played in boosting the show. Much credit is due the management of the show. However, Prof. G. I. Christie, of Purdue University, LaFayette, Ind., served well as superintendent of the show, and W. Q. Fitch and R. G. East, also of Indiana, directed the placing of exhibits, both educational and competitive.

The exhibit of the Department of Agriculture was comprehensive and instructive. It ranged from grain testing equipment to bugs, and included grains, hay, legumes and vegetables, many of them new and strange to the majority of visitors, but which have been raised successfully in some sections of the country. A great number of illumined colored photograph plates made an attractive setting for the whole room.

The state exhibits also contained much of interest and there were a number of novelties, such as a large plat of an ideal farm, the layout of a barnyard and exhibits of various feedingstuffs showing comparative values. These features were of particular interest to farmers, and those in charge were bombarded all through the week with questions which showed how ready the intelligent farmers are to take advantage of the scientific work that is being done by the various agencies.

The large ear of corn in the Indiana section aroused much curiosity. It was made by students at Purdue University to exemplify what a perfect ear should look like. The mammoth ear was 37 inches long and 30 inches in circumference. It had

82 rows of kernels, 225 to the row or a total of 18,450 kernels.

Another interesting exhibit was the large picture of a farm scene, made entirely of grain, seeds and grasses. It was a real work of art, and the accompanying illustration gives but a faint impression of the coloring and excellent drawing in the picture. From across the room it looked like a very fine work in oil.

The central feature in the Ohio exhibit was a pot of gold at the end of a rainbow. This gold, of course, was corn, and it was particularly appropriate inasmuch as the grand sweepstakes ear



THE 37-INCH EAR OF CORN

came from an Ohio farm, and from a section of the state where the soil is considered far below the average. Probably no award gave the judges more satisfaction than this, for it was the product, not of unusually favorable conditions, but simply of intelligent farming.

The highest awards in each class and region were as follows:

Class—White Corn. Region 1: Mrs. E. M. Medaris, Parker, Wash.; Region 2: Edward Peters,



FROM THE OHIO EXHIBIT



WISCONSIN PRODUCES A WORK OF ART

YELLOW VS. WHITE CORN

La Crosse, Wis.; Region 3: C. E. Troyer, La Fontaine, Ind.; Region 4: Peter J. Lux, Shelbyville, Ind.; Region 5: G. T. Buford, Pulaski, Tenn.; Region 6: J. E. Morrison, Sterling, Colo.

Class—Yellow corn. Region 1: E. E. Sterkey, Prasser, Wash.; Region 2: Joseph E. Bunker, Ridgeway, Wis.; Region 3: W. J. Ulrey, Attica, Ind.; Region 4: J. B. Hamilton, Shelbyville, Ind.; Region 5: G. T. Buford, Pulaski, Tenn.; Region 6: J. E. Morrison, Sterling, Colo.

Class—Single Ear Corn. Region 1: E. E. Eiker, Huntley, Mont.; Region 2: Lewis Scott, Fairmont, Minn.; Region 3: W. R. Butler, Kokomo, Ind.; Region 4: John H. Roads, Bainbridge, Ohio; Region 5: J. W. Scott, Gallatin, Tenn.; Region 6: John Howell, Montrose, Colo.

Class—Oats, Yellow or White. 1: J. S. Fields, Regina, Sask.; 2: H. W. Whitehead, Rockland, Wis.; 3: F. J. Sexauer, Ankeny, Iowa; 4: Joseph Isley, Franklin, Ind.; 6: John Howell, Montrose, Colo.

Class—Oats other than White or Yellow. 1: John Lucas, Cayley, Alberta; 2: H. P. West, Ripoe, Wis.; 3: W. F. Otcheck, Grinnell, Iowa; 4: George W. Dunseth, Waverly, Ill.; 5: C. S. Looney, Winchester, Tenn.

Class—Wheat, Hard Red Winter: (First three, no regions). 1: James Sanders, Manson, Mont.; 2: Seymour Kent, Salesville, Mont.; 3: Edwin Kent, Salesville, Mont.

Class—Wheat, Soft Red Winter. 1: I. B. Keckley, Marysville, Ohio; 2: John Dunbar, Rudyard, Mich.; 3: R. B. Caldwell, Cumberland, Ohio.

Class—Wheat, Hard Red Spring. 1: J. C. Mitchell, Dahinda, Sask.; 2: J. S. Fields, Regina, Sask.; 3: Seager Wheeler, Rosthorn, Sask.

Class—Wheat, White. 1: John Howell, Montrose, Colo.; 2: James S. Stephens, Belcarres, Sask.; 3: George Peck, Fairfield, Idaho.

Class—Wheat, Durum. 1: P. Keezyk, Oak Lake, Manitoba; 2: E. E. Young, Oak Lake, Manitoba; 3: George H. Pierson, Claremont, So. Dak.

Class—Hay, Red Clover. 1: Atkins Bros., Salesville, Mont.; 2: John Dunbar, Rudyard, Mich.; 3: Allen Salee, Bozeman, Mont.

Class—Hay, Timothy. 1: George Sterling, Salesville, Mont.; 2: Lewis M. Hanson, Mondovi, Wis.; 3: Frank J. Lendley, Fox Lake, Wis.

Class—Hay, Alfalfa. 1: Swartz Bros., Waukesha, Wis.; 2: Jacob W. Willett, Hillsboro, Ohio; 3: D. C. Stephenson, Jr., Manhattan, Kan.

Class—Rye. 1: J. J. Davis, Jackson, Mich.; 2: John W. Lucas, Coyle, Alberta; 3: Swartz Bros., Waukesha, Wis.

Class—Barley, 6-Rowed. 1: L. L. Young, Nampa, Idaho; 2: Anton Bohl, Beaver Dam, Wis.; 3: Otto Wolf, La Crosse, Wis.

Class—Barley, 2-Rowed. 1: Seager Wheeler, Rosthorn, Sask.; 2: Joseph Meyers, Freeport, Ill.; 3: Samuel Larcomtes, Birtle, Manitoba.

It was no light task which the judges had before them, for all the grain and hay exhibits were of high class. The hay judges were: Robert Clark of Chippewa Falls, Wis.; H. W. Smith of Fredonia,

While personal prejudice and custom will make it difficult to persuade Southerners that yellow corn is preferable to white, stock feeders generally will be ready to listen to Doctor H. Steenbock of the University of Wisconsin who recently found that yellow corn contains Fat Soluble A, a vitamine necessary for growth of animals, while white corn has none.

The experiments of Dr. Steenbock will need careful checking before they are finally approved by



PROFESSOR G. I. CHRISTIE OF PURDUE
Superintendent of the Grain and Hay Show

scientists, but the preliminary studies, as outlined by the Doctor in *Science* of October 10, are interesting:

It has now been conclusively demonstrated with eight different varieties of corn which are extensively grown in the Middle West, that while white corn contains no demonstrable amounts of the fat soluble vitamine, yellow corn may contain sufficient amounts to allow normal growth and reproduction in the rat. One rat has successfully reared her young after having been fed yellow corn suitably supplemented with vitamine-free protein and salts for seven months. On white corn, similarly supplemented, young rats usually died in three months, with the typical symptoms of a fat soluble vitamine deficiency.

These relations suggested the possibility of correlating other instances of the simultaneous occurrence of the fat soluble vitamine and yellow plant pigments. We have at hand the interesting observation of Osborne and Mendel that while the oleo oils contain the vitamine, the solid beef fats do not. They state specifically that the oleo oils were yellow while the solid fats were colorless. Furthermore, they were also able to separate the butter-fats by fractional crystallization into an active fraction of the liquid

In scores of feeding experiments in which butter-fat as prepared from ordinary butter has been used as the source of the fat soluble vitamine we have repeatedly observed variations in the vitamine content. It has not been possible to correlate this with the degree of pigmentation—which is well known to vary with the feed and the breed of the dairy cow—as the amount of natural pigment present had been concealed by the addition of butter color. One fact, however, appears particularly significant, and that is that when butter-fat is heated its vitamine is destroyed and simultaneously there occurs a destruction of its pigment. Whether this is an accidental coincidence or one and the same thing remains to be seen.

From the evidence submitted, it appears reasonably safe, at least as a working hypothesis, to assume that the fat soluble vitamine is a yellow plant pigment or a closely related compound, which view, moreover, is strengthened by the fact that we know through the work of Palmer and Eckles of the inability of the animal to synthesize the yellow pigments carotin and xanthophyll. From its occurrence in butter, in leaves, in carrots and in other materials known to be rich in carotin, it might be concluded that we were here concerned with carotin. Some data, that we have accumulated, have answered this in the negative, and it has been so reported, but it appears doubtful if much importance can be attached to these earlier results, as we have since observed that carotin, under certain conditions, is a very labile compound. We do not desire to mislead our readers by indicating that we have conclusive evidence one way or another.

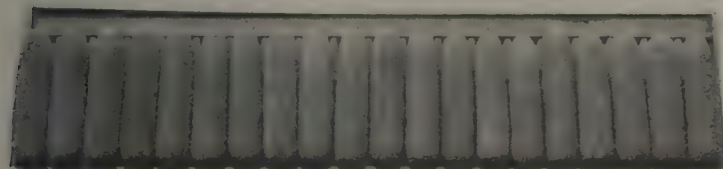
Provisionally, we are assuming that the fat soluble vitamine is one of the yellow plant pigments, but we are not unmindful of the possibility that the reasons for the association of these properties in nature, viz., yellow pigmentation and this growth-promoting property, may be a genetic one in some cases, while in others it may be indicative of mere similarity in physical if not chemical properties. If it is not a pigment, no doubt instances will soon be found where it is found to occur liberally in non-pigmented materials. We already have indications that certain materials are as rich in the fat soluble vitamine as is yellow corn, yet they are far less pigmented. Whether this can be explained in difference of kind of pigment, which in yellow corn is known to be principally xanthophyll, or whether we are dealing in these instances with the leuco compound, remains to be seen.

It is scarcely necessary to elaborate on these findings or to point out their possible economic significance. Many investigations based on the general premises which we have here outlined are now in progress and will be reported as the evidence obtained seems to warrant a detailed discussion.

WHEAT EXPORTS THROUGH GALVESTON

It is stated by H. A. Wickstrom, chief inspector for the Galveston Cotton Exchange and Board of Trade, that the total exports of wheat to foreign countries through that port for the month of November was 2,385,344 bushels, as compared with 3,194,107 bushels exported during the month of October. A total of 53,125 bushels of barley was exported through here during November. On December 4 the export wheat at Galveston included 2,340,012 bushels in the four elevators and 552,550 bushels in railroad cars on sidings here.

The total amount of wheat exported from Galveston from July 1 to December 4 was 11,347,724 bushels, in comparison with 2,958,024 bushels during the same period last year. This is an increase of 8,389,700 bushels. Barley exports since July 1



CHAMPION YELLOW CORN EXHIBIT

Kan., and S. W. Kemp of Spencerville, Ohio, so that no exhibitor can have reason to doubt the justice of decisions.

The quality of the wheat was pretty well expressed by a man from a wheat producing section of the Southwest that is rather dry. He took home with him a little match box full of the prize wheat. "The people of my country," he said, "never saw any wheat before. I am going to show them what real wheat looks like."

Another enthusiast described the exhibits: "The wheat is as big as hickory nuts; the corn like watermelons; and there's a pumpkin in there that is a full load for a three-ton truck."

fats—which was yellow—and an inactive fraction—which was colorless.

In an investigation of the nutritive properties of commercial oleos and their ingredients, the writer and co-workers have found a considerable difference in their vitamine content. It is significant that of the oleo oils, those most highly pigmented were also the richest in fat soluble vitamine and those least pigmented were the poorest. This, in view of the present prevailing conception of the importance of the vitamine content of certain fats in the diet, is a matter of such great economic significance that comment on it is reserved until the investigations now in progress shall have been completed. It is mentioned here merely to indicate why it is considered possible that the fat soluble vitamine may be one of the yellow pigments or a closely related compound.



THE PRIZE-WINNING WHITE CORN

total 473,125 bushels. Wheat exports since July 1 are already in excess of those during the previous 12 months ending at that time, during which less than 10,000,000 bushels were loaded for foreign countries at Galveston.

OVER 2,000,000 bushels of grain which could not find room in elevators and was stacked on the ground in the Southwest, has been moved to Galveston, and cars to handle the remaining 1,000,000-bushel overflow are being furnished as rapidly as possible. The losses from this cause have been severe and would have been heavier if the Grain Corporation had not sent a fleet of ships to Galveston.

NEWS LETTERS

MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

NEW life has been infused into the project of erecting a new building for the Chamber of Commerce of Milwaukee. The first thing to be done will be to find out just what the space requirements are for all the grain men and allied trades which would like to get quarters in such a structure. One of the other important committees is that on sites which will have to choose between contending forces which would like to get the building with its attendant advantages.

The general committee is composed of Harry M. Stratton, president of the Chamber of Commerce, chairman. The vice-chairman is H. W. Ladish, who also headed the Chamber not long ago. Other members are L. G. Bournique, A. C. Elser, William O. Goodrich, C. A. Krause, Albert R. Taylor, A. R. Templeton, Hugo Stolley, J. H. Crittenden, W. A. Hottensen, J. M. Hackler, C. E. Dingwall, George J. Zimmerman, and H. A. Plumb, secretary. The committee on space requirements is composed of Albert R. Taylor, A. R. Templeton and W. A. Hottensen. The committee on site is composed of Hugo Stolley, J. H. Crittenden and Albert R. Taylor. The committee on finance is composed of L. G. Bournique, A. C. Elser, William O. Goodrich, and C. A. Krause. The committee on construction is composed of H. W. Ladish, C. E. Dingwall, George J. Zimmerman and J. M. Hackler.

As soon as the committee on space requirements finds out just how much space will be needed, the size of the building can easily be determined. It is believed that a high office building of large dimensions will be required to accommodate all those allied with the Milwaukee grain industry. It is hoped to get active on the new building within a few weeks to the end that it may be finished before the lease on the old Chamber of Commerce expires one year from next May.

The activity of the Chamber of Commerce at present in all sorts of civic matters is also shown in the fact that a committee was named to share in the consideration of the new measured rates for business phones. This committee named consisted of Albert R. Taylor, W. A. Hottensen, Hugo Stolley and George A. Schroeder. Mr. Schroeder took part in the hearing before the Wisconsin Railroad Commission and declared that the proposed higher measured rates for business phones would increase telephone costs for grain men by several hundred per cent. The Wisconsin Telephone Company declares that it must have at least \$1,000,000 more in annual revenue to meet its charges and other financial needs.

One railroad man explains the scarcity of cars in Milwaukee by stating that in a general way wheat shippers are using but 95 per cent of car capacity now as compared with 101 per cent of capacity last year. Also that corn and oats are being loaded at about 77 per cent of car capacity as against 94 per cent last year. When it is remembered, he says, that cars can easily be loaded to 10 per cent above the marked capacity, the actual loss in car service from month to month is almost monumental. Much heavier loading is highly urged.

Reports have been received at Milwaukee showing that all the stocks of hard winter wheat owned by the United States Grain Corporation at Manitowoc and Milwaukee have been entirely exhausted. Stocks of soft red winter wheat held by the United States are being bought readily in all quarters of the country and those who want such goods are now asked to make requisitions at the earliest possible moment.

A striking decline in the oats receipts is shown at all the big primary markets, although Milwaukee is well holding its lead as the second largest oats market in the United States, a rank it has held for some time. The total receipts of oats at Chicago for the present crop season have been 35,000,000 bushels as compared with 56,000,000 bushels a year ago. This indicates that oats trade of Chicago is about half as large as last year. Milwaukee has dropped from 18,000,000 bushels received in 1918 to 12,000,000 bushels for the present season, a decline of about one-third. Minneapolis has dropped in oats receipts from 17,000,000 bushels to 8,000,000 bushels, or about half. St. Louis oats trade is holding up well with a little more than last year and a total for the present crop

season of about 10,000,000 bushels. Chicago, Milwaukee and St. Louis are now the three leading oats centers of the United States.

George Schroeder, traffic manager of the Milwaukee Chamber of Commerce, reports that there will be no immediate change in the grain rates from Buffalo east. This applies, Mr. Schroeder says, to the grain that has been shipped by lake to Buffalo, then by rail to points farther East. He declares that Milwaukee in the past season has shipped about 6,000,000 bushels by lake to the East and that was made possible because of the favorable rail rate after the grain was moved from ships to cars at Buffalo. After the railroads are turned back again to private owners, it is believed that there will be a conference called to increase freight rates on grains by 2 cents per 100 pounds. This increase would have to be brought up before the Interstate Commerce Commission and Milwaukee grain men and other grain interests of the Central West will again fight the proposition tooth and nail, in the opinion of Mr. Schroeder.

The slack movement of grain at the present time is shown by the fact that for the first week in December, Milwaukee received just 543 cars of grain as compared with 672 cars in the week before, 1,355 cars a year ago and 882 cars for the corresponding week of 1917. Grain trade is less than half of what it was last year and about 50 per cent less than the run for the corresponding week two years ago. Similar light shipments have been reported at all the other primary markets. The past week's receipts were divided as follows: 114 cars of barley, 143 cars of corn, 142 cars of oats, 98 cars of wheat and 46 cars of rye, making a total of approximately 540 for the week.

The December rate of interest for the Chamber of Commerce has been determined by the Finance Committee at 7 per cent, which is the high rate which has prevailed for some time.

Buying of barley for export has boosted the market to the highest figures for the season. Despite the inducement of high prices and the big export movement, the offerings are light.

William George Bruce, secretary of the Association of Commerce, has pointed out the growth in the Milwaukee port as compared with Chicago, a growth which he declares is largely due to the grain shipments from Milwaukee. Mr. Bruce states that Milwaukee's harbor tonnage has gone up to about 9,000,000 tons as compared with a decline to about 2,000,000 tons from Chicago. He quotes Gen. William M. Black, former chief of engineers of the War Department, who stated that Chicago has many obstacles in making a harbor, notably lack of wharves, crooked channels, and many bridge obstructions.

Milwaukee is the largest field seed market in the world and five leading wholesale houses here will handle \$15,000,000 to \$17,000,000 worth next year, asserts Edwin L. Rosenberg, president of the Milwaukee Seed Company.

"We do not know of any other market that handles this much field and grass seed, peas and beans and seed grains," said Mr. Rosenberg. "While the larger trade in general appreciates the fact that Milwaukee is the largest seed market in the world, it is not generally known among the medium sized dealers, nor has any publicity ever been given the public or the trade in general to demonstrate what a vast market this is for the articles named. The fault can be laid to the fact that this is one of the few large markets where the dealers do not pull together as they do in Toledo and other cities.

"Notwithstanding the handicap that the dealers here do not get together for the mutual benefit in giving Milwaukee the publicity it deserves as the largest center in the world for seeds, the credit should be given to the seed producing sections of our state and the personal aggressiveness of the big seed firms of the state. Should the proper publicity be given, not only the growers and shippers of the state, but the dealers here would also be greatly benefited. This is the only market where the seed trade in general recognizes that you can always get action either in buying or selling seeds. The jobbing trade keeps in touch more closely with Milwaukee, both buying and selling, than any other spot seed market.

"Another way to promote a still larger seed market here would be to have our Chamber of Commerce here and dealers establish a contract grade of red clover, alsike, timothy, alfalfa, and standardize these gradings not only for the United States but Europe as well, which can easily be done.

"On account of the new seed laws coming into effect in the various states, the Wisconsin dealers are

in a very advantageous position to compete because of the unusually pure seed raised in large quantities in Wisconsin.

"A great deal of credit for Milwaukee being the largest seed market in the world is due to the activities of the Milwaukee Chamber of Commerce through its commission houses. No doubt, in the near future, the proper publicity and credit will be given Milwaukee as the recognized largest spot seed market in the world."

Among the recently elected members of the Chamber of Commerce are Courtney H. Casebeer, Des Moines; William H. Bartz, Des Moines; Robert P. Fairbairn, Michael F. Cudahy, Milwaukee, and Hart C. Putnam, Minneapolis.

Frank P. Walsh, who for two years has been associated with the Crosby Transportation Company, has resigned as general manager of that line to become associated with the Wisconsin Transit Company, a Milwaukee corporation which will establish a new steamer service between Milwaukee, Grand Haven, Muskegon, and other Michigan points. The new line will open a long neglected route, Mr. Walsh says, and will give excellent freight service, thus avoiding the congestion of the Chicago terminal. Several steamers have been obtained and a full daily service will be provided for, beginning early next spring. More limited service will be given this winter.

PHILADELPHIA

RALPH W. E. REID, CORRESPONDENT

A MEETING of Commercial Exchange members and grain exporters of Philadelphia was addressed on December 2 by H. D. Irwin, second vice-president of the United States Grain Corporation, in which he discussed the advisability of allotting space in the Philadelphia export elevators to merchants having use for the space for the export of grain. After an open discussion, it was decided by the members of the Exchange that it was best to keep the elevator space elastic and that a continuance of the permit system would work to the best advantage of all concerned.

Mr. Irwin did announce, however, that as a result of requests by several of the largest grain exporters that a reasonable amount of unsold grain would be allowed to accumulate in the elevators, but that this grain must be sold within a 30-day period. This was done in order to provide a stock of grain to facilitate quick export of shipments.

Pennsylvania has pushed into a high rank among the corn raising states and taken first place as a producer of buckwheat in 1919. According to figures reported by G. L. Morgan, field agent, Bureau of Crop Estimates, Pennsylvania has harvested the largest crop in the history of the state. Conditions were extremely favorable throughout the season, but some damage was done by storms and wet weather since the harvest, causing mold in the shock. This condition, however, is not general.

The corn yield is estimated at 47 bushels an acre and total production 72,568,000 bushels, compared with 62,400,000 bushels in 1918, and 58,369,000 bushels, the average production in the last 10 years. The quality of this year's crop is exceptionally high excepting in those localities affected by the wet weather and is estimated at 96 per cent of normal compared with 86 per cent, the average quality for the last 10 years. The average of old corn remaining on the farms is estimated at 2.3 per cent of last year's crop, of 1,435,000 bushels, as compared with 1,868,000 bushels the average amount on hand for the last 10 years.

Conditions were very favorable for buckwheat and the crop is the largest since 1912. The yield is estimated at 23 bushels an acre and the total production 6,164,000 bushels, compared with 5,850,000 last year and 5,567,000, the average production for the last 10 years. The quality is 91 per cent as compared with 90 per cent, the average quality for the 10-year period.

The clover seed yield is estimated at 1.4 bushels per acre, and total production 10,500 bushels, as compared with 16,000 bushels last year.

Samuel H. Young, senior member of the grain and feed firm of S. H. Young & Co., with offices 417 Bourse, and E. M. Tyrrell of the Philadelphia branch office of the International Mercantile Marine Company have been proposed for membership in the Commercial Exchange.

Cars unloaded at the Girard Point elevators during November were: Wheat, 703; oats, 166; rye, 18.

Stocks of flour in Philadelphia's warehouses as of December 1 show a large increase in comparison with November 1, and the total, 247,966 barrels, was the largest shown in any of the records of the Commercial Exchange which extend back to 1887. According to

the monthly report of the statistician of the Commercial Exchange, on December 1, there were 247,966 barrels of flour in the public warehouse, an increase of 76,889 compared with November 1, when stocks totaled 171,077 barrels. On December 1, 1918, the flour stored was 246,094.

Stocks of grain in Philadelphia public warehouses December 1 were: 1,653,979 bushels wheat, 17,445 corn, and 190,059 oats, contrasted with 2,955,223 wheat, 25,054 corn, and 164,698 oats on November 1.

W. S. Woodward and E. H. Price represented the Commercial Exchange as delegates to the Deeper Waterways Association convention held in Charleston, S. C., November 10-13.

Figures showing the wheat, rye and oats production of the counties of Pennsylvania in detail, with Lancaster leading in wheat growing and Berks raising the most rye and oats, has just been issued by the State Department of Agriculture's statistical bureau. The figures are based on reports from 700 districts and the total crop is given at 66,288,300 bushels. Wheat production is given at 28,011,000 bushels, a substantial gain over 1918; rye at 4,736,800 bushels and oats at 38,540,500. York is second in the wheat list and Franklin third. Other million-bushel counties are Berks and Cumberland in the order named. In the oats list Berks leads with 1,553,040 bushels, Westmoreland being second and Somerset third. Berks is at the top with rye with 339,227 bushels. Northampton is second and Bucks third.

DULUTH

S. J. SCHULTE - - CORRESPONDENT

THE United Grain Company is closing out its business on this market after an experience extending over 10 years. Dullness of trade during the last two years brought about by war-time restrictions and the light spring wheat crop and small receipts of last season are given as reasons for the company's decision to wind up its operations. General sympathy has been extended by traders to John H. Ball, the manager of the company, who is held in general esteem in trade circles.

C. T. Mears, buyer of the Itasca Elevator Company, has been elected a director of the Duluth Board of Trade to fill the vacancy brought about through the resignation of J. H. Ball.

Applications have been made for transfers of the following Duluth Board of Trade memberships: George F. Foster to George W. Rigby, who is representing H. L. Hankinson & Co. on this market; George Spalsbury to Grover C. Wilson; W. H. Klichli to Harry J. Crofton, of Lewis, Proctor & Co., New York; Siebel C. Harris to F. H. McCarthy; James F. Barry to John F. McCarthy and John A. Todd to Lewis, Proctor & Co.

H. S. Starkey, manager of the Consolidated Elevator Company, attended the annual meeting of the company being held at New York last week. He was re-elected president of the company and G. H. Spencer, secretary.

Frank Tenney, manager of the Tenney Company's business on this market, is spending a vacation at his old home at Boston and at other points in the East. He proposed also to look up his houses Eastern connections.

Watson S. Moore, secretary of the United States Grain Corporation, announced in the course of a recent visit to Duluth that he proposes to resume business on this market as soon as that corporation relinquishes control of marketing last season's wheat crop and he is released from its service. A similar statement was made by Julius H. Barnes, Wheat Director, a few weeks ago. It is presumed that the Barnes-Ames Company will resume its former position in the trade after it is returned to its former channels next summer.

Franklin Paine has retired as manager of the Duluth Clearing House Association, and George F. Foster, late manager of H. L. Hankinson & Co. on this market, has been appointed to the vacancy. Mr. Paine served for 25 years as manager of the Clearing House, and he ranks as one of the oldest traders on this market, being one of the original members of the Duluth Board of Trade. He is held in high esteem by a wide circle of former business associates. George F. Foster who has succeeded him as manager of the Clearing House has been connected with the market here for 18 years, for eight years of that period with H. L. Hankinson & Co.

Plants of grain and elevator companies operating at Superior have been assessed as follows, on account of income taxes: Superior Terminal Elevator Com-

pany, \$49,196; Itasca Elevator Company, \$26,192; Spencer, Kellogg & Sons, \$53,566, and A. D. Thomson & Co., leasees of the Great Northern system of elevators, \$21,144. Corporations at the Head of the Lakes have come off lightly in the way of income taxes during the past season on account of the comparatively small volume of business handled in comparison with other years.

As a sequel to the recent suspension of the Standard Grain Company, Anna C. Kell, owner of a grain elevator at Portal, N. D., is seeking to have a contract with that concern cancelled. Its management had agreed to take over the elevator after the death of her husband and to pay her \$50 a month for the good will of the business. In the writ issued, she states that she received regular payments up till last July, but that since that time the defendant has failed to make good.

Small hopes need be entertained of the shortage of spring wheat on the American markets being relieved through importation of Canadian wheat as a result of the cancellation of the prohibition against imports being lifted, in the opinion of R. J. Henderson, a Fort William grain operator who was a recent visitor on this market. In the course of an interview he pointed out that the crop in the Canadian West also fell far short last season, and that its marketing is entirely under the control of the Government Wheat Board. As the wheat raised in the three Western provinces is practically all under contract for export to Great Britain, Mr. Henderson assumes that none of it will be available for shipment to the United States. The Fort William man asserted that while the movement of grain to the elevators at the Head of the Lakes has been liberal, considering that the last wheat crop only aggregated approximately 170,000,000 or 175,000,000 bushels, considerable of it still remains in interior elevators and in farmers' hands to be marketed.

B. Stockman, president of the Duluth Board of Trade, and Earl M. White of the White Grain Company have returned from a visit to Fort William and Port Arthur with a contingent of Duluth "boosters." They asserted that the grain trade at the Canadian Head of the Lakes appeared to be quiet as compared with other seasons as a result of the falling off in the production of wheat and other grains over their West last fall. Only a few millions bushels of all grains remained in the elevators up there at the close of the lake navigation season, so that the trade has somewhere around 45,000,000 bushels' elevator space to take care of any run of marketing that may develop during the winter months. The Duluth men were informed in trade circles that in round figures 30,000,000 bushels of last season's crop of wheat is supposed to remain in the country to be moved. As last season's wheat crop is under the control of the Government grain men at Fort William are dubious on the score of any of it being exported to this country as a result of the removal of the prohibition against imports into the United States. Farmers in the Canadian Northwest are therefore doing some protesting on the score of their inability to take advantage of the high premiums going for wheat on the Duluth and Minneapolis markets. Grain operators at Fort William and Port Arthur are looking forward to a good trade next season after the removal of the Government restrictions upon the marketing of wheat, provided, of course, that the crops harvested average up at normal, Mr. White asserted.

As illustrating how hard the vessels were put to it to obtain cargoes before the close of navigation this year, it was mentioned that the steamer *Tioga* which was wrecked near Eagle Harbor, Lake Superior, on her last trip, was obliged to visit three elevators to obtain a mixed cargo of 100,000 bushels of durum, rye and barley. The vessel rate on grain for Buffalo delivery at the close of the season was 5 cents to include winter storage.

The managements of Duluth elevator and grain houses have announced that they propose to keep their forces together as far as possible during the winter and spring months with a view of being in a position to take care of any favorable trade slants that may come about during the 1920 season. It is intimated that the building of a new elevator plant may be undertaken by one of the elevator companies next spring should the outlook appear to be favorable.

In distinct contrast to other seasons the elevator here did not experience any rush during the closing days of the lake navigation season. The last grain was loaded out of the elevators by midnight on November 30 in time for the boats to clear the harbor before the close of the regular insurance period, while a year ago the last boats did not clear until 10 days later. Data at the secretary's office show that only 11 storage cargoes were loaded out this season, as against over 100 during the final days of the 1918 season. The tale of a disappointing season to operators is unfolded in the fact that receipts of all grains at the elevators for the present crop year from August 1 to December 1 aggregated only 18,751,276 bushels as compared with 73,712,698 bushels

during the same period last year. Wheat receipts were reported at 9,308,900 bushels, as compared with 59,303,222 bushels last year; oats at 409,309 bushels, against 1,787,894 bushels; barley at 1,732,637 bushels, against 12,868,081 bushels; rye at 6,561,238 bushels, against 7,070,798 bushels, and flax at 738,275 bushels, against 2,660,910 bushels. Stocks of all grains in the elevators when navigation closed down were 6,900,000 bushels.

INDIANAPOLIS

MURRAY E. CRAIN - - CORRESPONDENT

CORN business has dominated trading on the Indianapolis Board of Trade recently, demand for both corn and oats being excellent. Immediate delivery is the usual stipulation. With the ending of the coal strike in prospect, some dealers look for a weakening of the market, but it is not generally believed that the miners' return to work will have any appreciable effect on the grain trade. Receipts of corn were good in November, while the other lines showed a natural decrease as compared to recent months.

The annual convention of the Indiana Grain Dealers Association will be held on January 15, according to an announcement by Charles B. Riley, secretary of the organization. The semi-annual meeting of the Indiana Millers Association will be held the following day, January 16. A meeting of the Board of Managers of the Grain Association was held in Indianapolis on December 9, at which Mr. Riley was authorized to select the exact dates. Both conventions will be held in the Library of the Board of Trade, which is spacious enough to take care of the big gatherings. Edward K. Shepperd, of the Cleveland Grain Company, has been nominated as an Entertainment Committee to arrange for the lighter features of the convention. Whether Mr. Shepperd will stage the usual banquet or put on a vaudeville show, or both, is not yet known. The Indiana Grain Dealers Association now has about 400 members and a big majority of these are expected to be on hand for the meeting. Mr. Riley and other officers of the Association are arranging an attractive business program.

The Steinhart-Bell Grain Company is a new concern to enter the field in Indianapolis. The company has been admitted to the Board of Trade. It is made up of Homer W. Bell, who has been with the Watseka, Ill., Farmers Elevator Company and A. N. Steinhart, who has been secretary of the Farmers Grain Dealers Association at Bloomington, Ill. Everett E. Allison has been made manager of the new company's Cash Grain Department.

Indiana elevators apparently have suffered to no great extent during the coal strike and the grain trade probably got through the ordeal with less inconvenience than almost any other industry. Only a few of elevators in the state were forced to close down because of lack of coal. A great many fell back on the goodly supplies of cobs, and others apparently were forehanded enough to lay in coal during the summer, when the laying in was good. Even the car shortage was no worse than usual. While passenger service was cut to the bone, the Railroad Administration made an earnest effort to keep freight traffic as usual and succeeded to some extent, at least.

The Bartlett Frazier Company, of Chicago, has established a branch in Indianapolis, the new office being located in the Board of Trade Building. The company has been admitted to the Indianapolis Board of Trade. T. M. Connor, who for a good many years was with the Wagner Grain Company, at Kankakee, Ill., is the local manager for the Bartlett Frazier Company. Harold Wilcox, who has been with the Savers Grain Company, of Indianapolis, is in charge of the cash grain department.

Grain men are not highly popular with the Indiana Farmers Federation, and several who are actually engaged in the farming business and sought to join the organization of agriculturists have received their money back. The latest instance of this was when George W. Rohm, of Rockville, who is both a grain man, miller, implement dealer and farmer, sent in a check to the farmers' organization. He received it back with much alacrity, and was so amused at the incident that he passed it on to the Indiana Implement Dealers Association at its annual meeting in Indianapolis on December 5. Mr. Rohm was one of the chief speakers at the meeting. As for the federation of farmers' clubs, it has raised \$34,000, it was announced at their recent convention, of the \$200,000 fund proposed. Just what the farmers are going to do with this money is not yet known. The secretary of the organization, in making his annual report to the farmers, touched lightly on the now celebrated grain case and said that the decision of Mr. Irwin

would be appealed to the President, but as far as Indianapolis men have been able to learn, the appeal has not actually been made and the case probably has gone down to history. It is not believed improbable that the complaint against \$2.11 wheat was purely a political move, made against the coming of the farmers' meeting.

Receipts of corn in Indianapolis are reported to be of excellent quality by both the Board of Trade and Government inspection bureau. Moistures tests have been satisfactory, and the weight has shown up well.

The Union City Elevator Company has incorporated with a capitalization of \$25,000, those interested being Clyde N. Chattin, Clyde Shultz and Oliver J. Rowe.

With a capitalization of \$15,000, the Coatesville Elevator & Feed Company has been formed at Coatesville, Ind. The directors are Frederick A. Rouse, James E. Sutherland and O. J. Larkin.

The annual directory of the Indiana Grain Dealers Association will be placed in the hands of subscribers in the immediate future. The copy has been in the hands of printers for some time and will be ready for the mail about December 20, it is thought. "Bigger and better than ever" describes the new guide.

"You make a mistake in opposing the organization of farmers," said Earl Crawford, a practical farmer of Connorsville, Ind., at a recent convention of business men in Indianapolis. "Business men organize to become more efficient and the farmers organize for the same reasons. Any association the purposes of which are not legitimate can not survive." All of which are perfectly reasonable sentiments. At the same meeting, a speaker recalled one farmers' organization which disbanded after its head had made a modest fortune out of the venture.

The new seed corn house of Ainsworth Bros. & Boone, at Kentland, Ind., is regarded as one of the finest in the state. The building is 50 by 100 feet in size, and is five stories high. There are 300 doors and windows in the building to expedite the process of curing seed corn, in addition to three hot air furnaces which are utilized when necessary. The furnaces are on the first floor, and all of the upper floors are laid with a one-inch space between the boards, so that the heat is distributed quickly to all parts of the building. Two of the proprietors of the plant are graduates of the school of agriculture, University of Illinois.

KANSAS CITY B. S. BROWN - CORRESPONDENT

THE wheat movement to Kansas City increased substantially in November, due to the large number of cars sent to the Southwest by the Railroad Administration to move distress wheat in Kansas, Missouri and Nebraska. Total arrivals were 11,750,000 bushels, compared with about 6,000,000 bushels in October, 2,500,000 bushels in November a year ago, and an average November movement of 5,000,000 bushels. Receipts from July 1 to the end of November aggregated 57,708,450 bushels, compared with 44,409,600 bushels in the corresponding time last season. Corn receipts continued small, 615,000 bushels in November, compared with 495,000 bushels the preceding month, 875,000 bushels a year ago, and an average of 1,169,000 bushels. Arrivals of oats were 651,000 bushels.

Purchase of the building occupied by the Kansas City Board of Trade by the members of the Exchange has been brought up for discussion again. The price asked is \$225,000, which is considered a little high by many members, who point out that the Exchange has a lease of five years on the property and that by the time it expires they may want a location in a different part of the city. It is understood that \$175,000 was offered for the property.

Despite the fact that Kansas City was caught with as little coal on hand as any other region, elevators were not obliged to curtail operations and the larger ones indicated they had enough fuel in reserve to last till the middle of January. In one case an elevator attempted to reduce operations in order to conserve its coal, but it was advised by local coal officials to keep grain moving as rapidly as possible as it was of the utmost importance to get certain Government shipments out of the way. The elevators operated by electricity receive current from the city plant, which, in case no coal is obtainable, will continue to run with oil. Among rulings made by local authorities was one requiring all office buildings to be open only from 9 to 4. Before and after these hours there was no heat, light or elevator service. On two days when

the exchange hall of the Board of Trade was opened the temperature was around 35 degrees and the limited supply of heat made the room barely comfortable by the close of the market. Visitors and brokers generally wore overcoats and gloves.

Unusually large deliveries of oats were made on December contracts at Kansas City the first few days of the month, the amount being 275,000 bushels.

The E. D. Fisher Commission Company recently received a car of No. 2 hard wheat from Yuma, Colo., which contained 2,156 bushels and sold for \$5,606.47, probably the highest price ever paid for a single car of grain at this market.

Dissatisfaction recently has arisen over the Grain Corporation's agreement to pay storage of seven-tenths of a cent a bushel a week on wheat held in the country because of a car shortage, according to D. F. Piazzek, agent at Kansas City. In many cases, Mr. Piazzek said, elevator men have not kept accurate records of this storage allowance, which is payable only on 20 per cent above the average turnover of the plant. Some reports also show that dealers failed to load cars to capacity, which subsequently became a factor in the accumulations. Most of the trouble over claims has been the result of incomplete records. Claims for storage must be strictly in accordance with the Government regulations. In many cases dealers have not asked for storage allowances, as they have been able to make good profits with wheat at big premiums at terminal markets.

The Moffatt Grain Company recently received a car of unthreshed kafir from Texas, said to be the first car ever received at this market in that form. It was sold to a feeder in Montana.

To prevent delay in getting cars out of railroad yards, much of the grain sold at Kansas City the past few weeks has been on the basis of destination weights, with the permission of the seller. The special ruling whereby this is done will be rescinded as soon as there is no danger of congestion.

George S. Carkener of Goffe-Carkener & Co., is in France. While abroad he will visit the grave of his son, Stuart Carkener, who was killed shortly before the end of the war. Mr. Carkener will return about Christmas.

Kansas City elevators were nearly full of wheat on December 1, 14,250,000 bushels, only a few hundred thousand less than the maximum held here this season, but much of the congestion that existed here a month ago has been relieved. Cars are more plentiful and outbound shipments have been maintained at a fairly liberal rate. A big run of wheat the latter part of November, with arrivals for one day reaching 488 cars, caused no inconvenience.

James Russell, wheat buyer for the Grain Corporation at Kansas City this season, resigned December 1 and resumed his former duties of chief sampler for the Board of Trade Sampling Department. As no wheat is or has been selling near the guaranteed levels for many weeks, his services were no longer needed. Little wheat was bought by the Government on the open market this season, as most of it was received from elevators on warehouse receipts.

R. A. Jeanneret, secretary of the Moore-Seaver Grain Company, has been elected a member of the Kansas City Board of Trade on transfer from W. H. Perrine of Chicago. The membership sold for \$14,000, including a transfer fee of \$500.

For the first time in its history, the Kansas City Board of Trade has sold a new membership, thereby raising the number of members to 201. From the time of its organization about 25 years ago it has been 200. The new membership, as provided by the regulations of the Exchange, cost \$15,000. The purchaser was Joseph Whyte of Omaha, who, with W. E. and W. D. Smith of Macedonia, Iowa, will organize the Smyth-Whyte Grain Company at Kansas City in the near future. Heretofore when a man wanted a membership he was able to buy one from a retiring grain dealer, but at the time Mr. Smyth wanted his none was for sale, except at the price established several years ago for issuing new certificates. A membership sold at \$15,000 last winter, which, however, included a transfer fee of \$500. A new high record for memberships was announced at Chicago the same day the Whyte membership was posted. The Chicago price was \$11,000.

The announcement made the middle of November that the Grain Corporation would resell on the domestic market part of the stock of wheat it has accumulated at the principal terminal markets brought a flood of requisitions to the Kansas City office within a few days. The Government held at Kansas City 2,792,000 bushels of hard wheat and 4,781,000 bushels of red. Orders for hard wheat exceeded the available supply five times over and for red wheat three times, making it necessary for D. F. Piazzek, agent, to prorate the stocks. Nearly 2,000,000

bushels was allotted to Kansas millers, 1,750,000 bushels to Missouri outside of Kansas city, 714,000 bushels to Kansas City concerns and about 2,000,000 bushels to the Northwest, chiefly to Minneapolis.

Most of the wheat bought by the Grain Corporation at Kansas City was the grain of indifferent quality received last summer and for which there was little demand at the time. Little No. 1 hard wheat will be delivered and the bulk probably will be No. 3. There was an excellent demand for it, particularly the hard wheat, as there has been a growing scarcity of all grades of hard wheat in the Southwest for several weeks.

Immediately following the announcement that Government's wheat was to be released, the carlot market broke abruptly as much as 20 cents a bushel, but within a day or two had turned up again and soon advanced to new high levels for the crop, hard selling as high as \$2.80 and red at \$2.48. The Government wheat was moved out of Kansas City elevators at the rate of about 40 cars a day the latter part of November.

NEW YORK G. K. TRAFTON - CORRESPONDENT

AT A MEETING of the Board of Managers of the New York Produce Exchange held on December 1 resolutions were adopted urging upon the President of the United States and the United States Senate the necessity of a speedy ratification of the Peace Treaty, making this Exchange the first to take such action. A few days later similar resolutions were adopted by the New York Chamber of Commerce. The resolutions were as follows:

Whereas, The United States has just carried to successful conclusion a great war, fought on the battlefield and in the work-shop, by the great body of American people, irrespective of race, creed or political faith, at a great cost in lives and money, both willingly given for the noble ideals of justice, humanity and freedom; and

Whereas, A whole year has gone by since the Armistice, and still no Peace Treaty has been signed, this delay leaving the whole civilized world in an unsettled, chaotic state and jeopardizing the fruits of the war won at such costs of blood and treasure; and

Whereas, The Board of Managers of this Exchange, departing from its usual custom of taking no part in any public business of a political character, now feels justified in this crisis in abandoning its traditional policy in this instance, because of its belief that the question at issue is not really a political or party question at all, but is a matter of vital interest to the business world, and being fully convinced that no international financial plans for extension of credit to Europe can be consummated until a Peace Treaty is signed, and that without such credits being given our export trade must inevitably suffer materially, reacting unfavorably upon our domestic trade; and

Whereas, The Board of Managers is convinced that the people of these United States, regardless of party, desire that such a Treaty shall be signed as shall secure to us the fruits of our victory, keep the faith that is pledged to our Allies in a great cause, and insure to our boys that sleep beneath the popples of Flanders' fields that their lives were not given in vain; therefore be it

Resolved, That the Board of Managers of the New York Produce Exchange, speaking for the important business it represents, urges upon the President of the United States and upon the United States Senate the great necessity of speedy action upon the Peace Treaty, and earnestly appeals to them, personally and individually, to lay aside all political and partisan considerations, and in the name of common humanity, and in the vital interest of the world of commerce, industry and finance, to make an honest and vigorous effort to harmonize the differences now blocking action, so that a compromise may be quickly reached that can command the two-thirds vote of the Senate necessary for ratification; and, be it further

Resolved, That the President of this Exchange be and hereby is instructed to immediately transmit to the President of the United States and to every member of the United States Senate a copy of this resolution.

Archie D. O'Neill, for many years assistant manager of the Erie Elevator in Jersey City and afterwards manager of the Long Dock Mill and Elevator in the same city, and for two years with the United States Navy, has returned to the grain trade, having become associated with the firm of Lewis, Proctor & Co., exporters.

Edward T. Cushing, for many years a prominent member of the grain trade on the New York Produce Exchange, and among the first advocates of the enlarged Erie Canal and of more adequate grain elevator facilities for the Port of New York, delivered

the opening address at the annual session of the New York State Waterways Association held at Albany late in November. His subject was "The Barge Canal as a Carrier of Grain."

Mr. Cushing pointed out that the present Barge Canal was a failure, in its inability to carry 75 per cent of the tonnage of the canal, which had been the normal Eastbound tonnage of the canal.

Under the old canal conditions, in 1882 the canal carried 34,500,000 bushels of grain, or 30.27 per cent of the receipts at New York for that year. In 1883, 41,000,000 bushels, or 33.15 per cent; in 1884, it carried 38,000,000 bushels, or 32.87 per cent. This was with 250-ton barges.

In 1919, up to November 1 with 1,000-ton barges it carried only 4,500,000 bushels, or 4.65 per cent, and in 1918, the first year the canal was opened, only 2.61 per cent of the city's receipts.

The canal has been a failure in the two years, as a carrier of grain. The first requisite for a change was an adequate supply of boats, and there were no boats on the canal except the Government boats, and no one had dared build boats since the Government took control, and none were now building.

The Railroad Administration had complete control of the canal now, and only by re-assumption of state control of the canal and the providing of adequate terminal facilities at New York could the canal, which cost the people of the State of New York \$150,000,000 be prevented from continuing as a failure as a carrier of grain.

The state has at present ample unimproved property in New York Harbor for the building of proper terminals, which should be done immediately.

Edward S. Walsh, state superintendent of canals, who spoke subsequently, confirmed all that Mr. Cushing had said and in some cases was even more emphatic. Upon his return from the meetings Mr. Cushing stated that the first steps necessary to bring about the much needed additions and improvements were already being taken as a result of the deliberations of the Waterways Association.

Frank M. Turnbull, who was in New York for a few days early this month, received a cordial welcome from his many old friends and associates on the Produce Exchange where he was a member for about 15 years, representing the large grain and flour house of Wilkinson, Gaddis & Co. of Newark, N. J. For the past two years he has been in Philadelphia, representing the Taylor & Bournique Company, well-known grain merchants of Milwaukee. He stated that he had recently severed that connection and gone into the brokerage business on his own account.

Charles T. Mallette, formerly connected with the Keusch & Schwartz Company and afterwards with B. F. Schwartz & Co., will hereafter act as representative on the New York Produce Exchange of J. S. Bache & Co., members of all the leading exchanges of the country. Mr. Mallette will have charge of the business passing over the private wire soon to be installed connecting the Produce Exchange with the Chicago Board of Trade.

The Argentine Import & Export Corporation, formerly represented on the Produce Exchange by its president, Carlos Falk, was dissolved by action of the stockholders at a special meeting held in New York late in November. Mr. Falk is now identified with P. N. Gray & Co., the firm organized a short time ago to carry on a grain exporting business, and which Mr. Falk represents on the Exchange floor.

Alexander R. Merkelson, for several years connected with the Nye, Jenks Grain Company, originally as bookkeeper and office manager, has been elected to membership in the New York Produce Exchange. He has succeeded to the position of assistant cashier and floor representative formerly held by Edward Werd. Other admissions to membership in the Exchange were: Wm. C. Schilthuis of Schilthuis & Co., grain merchants; Albert C. Matt, associated with Hans Simon, representing L. Dreyfuss, grain merchant of Paris. The following applications for membership in the Exchange have been posted: Wm. Knight, Jr., of Knight & Co., grain commission merchants of New York and Chicago, formerly Knight & McDougal. Clarence H. Penny of Schilthuis & Co., grain merchants.

The Corbin Flour Company of Chicago, brokers, merchants, and exporters of food products, including flour, feed, grain, and Oriental oils, has opened a branch office in New York which will be in charge of Charles A. Allen, formerly of Chicago.

Although there is nothing in the charter of the New York Produce Exchange providing for athletic or pugilistic contests, one of the big committee rooms was the scene of quite a lively scrap late last month. It is only just to say that none of the members were involved in the bout, which was a strictly private affair between some of their guests. In short, it was the climax of a dispute between representatives of rival factions of the local 'longshoremen's unions attending the hearings of the National Adjustment Commission, which was endeavoring to settle the

strike among harbor workers. Fortunately, or unfortunately (according to viewpoint) the police interfered before any great damage was done. Nevertheless, some of the younger and more athletic members of the Exchange contended that such action on the part of their guests was highly discourteous and a poor repayment for the hospitality shown them. They maintained that all such diversissements should be conducted on the trading floor which is much larger and would enable all the members to act as audience or participants according to individual taste. Such unneighborly conduct, not to say, snobbish exclusiveness, surely seems to deserve censure.

J. E. Henry of Noyes & Jackson, commission merchants on the Chicago Board of Trade, was a recent visitor on the Produce Exchange, having come East principally in connection with his election to membership in the New York Stock Exchange. Other prominent Chicago grain men seen on the Exchange floor during the month were: Robert McDougal, formerly a member of the firm of Knight & McDougal; J. E. Cairns, a member of the firm of Jackson Brothers; Fred S. Lewis of F. S. Lewis & Co., grain and provisions; and Frank G. Ely, grain shipper.



HIGHEST prices of the season were registered in the St. Louis corn market recently, with most pronounced strength manifested in the December option. Trading has been fairly broad, but taking the market generally, the outside interest has not been as extensive as during the same period a year ago, possibly due to the fact that the New York stock market, during the recent boom, attracted much of the public speculative following, because of the big profits that were being made over night. Taken as a whole, however, the old year is closing with the grain trade well satisfied with the 12 months' results, and the outlook rosy for the coming new year, especially if the peace treaty is signed, and credits extended to foreign nations so as to permit purchasing their much-needed supplies of grain and foodstuffs in American markets. Bulls on the corn market are confident that high prices will prevail until the next crop is harvested, or until Europe catches up on her production lost during the war. As a leading grain man puts it: "There is not much chance of cheap corn when wheat is selling in the Northwest at \$3; sugar, cotton, steel, lumber and practically all other commodities advancing, and labor getting increased wages, apparently without difficulty whenever an increase is asked. It is true there are over 300,000,000 bushels more corn in the country than a year ago, but there is a big shortage of oats and liberal supplies of hogs, and the abnormally cold weather now is causing excessive feeding demands from Canada to Texas. Farmers also are prosperous and refuse to sell their corn when the market drops too low to suit them. Many farmers also, no doubt, are holding their corn until after they make their tax returns for the next year. With the car situation decidedly against free marketing of the crop it is also very easy to oversell the market, and this accounts for many sudden price bulges when the 'scenery' seems all set for a material decline."

Bears, however, are equally as confident that the new year will prove a lower market for corn; and think that the present price level is highly artificial. They declare that the coal strike and car situation have been against the market in holding off receipts, and that this has given the opportunity to manipulate the December and January options, and that this has carried up the May. They say that now the coal strike is over that shipments will be very heavy shortly; that the cash premium of 15 to 20 cents over futures will be wiped out, and that ultimately corn will sell for a dollar. They point to the fact that corn in the Argentine is below a dollar: that it is a question of freights that makes the American market stand where it is. They claim that the weakness in foreign exchange checks American exports; and that England is making no effort to right the exchange market, as it is forcing Americans to keep their products at home, while England restores her trade with other countries before the markets of Germany are completely opened to the world's commerce. This, bears declare, means that the United States next spring will find her markets with a big surplus on hand and new crops coming on, and that nothing then can prevent a severe decline in prices of grain and all other commodities.

Charles L. Niemeier, of the Schultz-Niemeier Grain Company, is slated for presidency of the St. Louis Merchants Exchange at the annual election of officers and directors which will be held early in January. Under an unwritten rule of the Exchange the first vice-president succeeds to the presidency if there is no independent ticket in the field. There promises

to be no opposition to the regular ticket this year, and consequently Mr. Niemeier should be the next president. J. O. Ballard of Ballard-Messmore Grain Company, served two terms as president of the Merchants Exchange before E. C. Andrews, the present incumbent took office. But Mr. Ballard's double term was in the nature of a war measure. Under the rules the retiring president becomes an honorary member of the Board of Directors. The Exchange has experienced a very prosperous year, and memberships are selling around \$1,700, the highest level reached in many years. The membership now is less than 900, whereas at one time it was close to 3,000. Many memberships have been redeemed by the Exchange under a plan that provides for the purchase of a certain number each year at a specified price.

The largest shipment so far down the Mississippi River by the Federal Barge Line was made recently and in addition to the general cargo carried on five barges there was a large consignment of grain for export. The Marshall Hall Grain Company loaded two barges, each with 62,000 bushels of wheat at its Burlington Elevator, for the Grain Corporation. The shipment was the largest of grain so far made by the barge line.

Millers of St. Louis recently contributed \$510 to the Sunday Hospital Association, according to A. C. Bernet of the Bernet, Craft & Kauffman Milling Company. Mr. Bernet has been in charge of the annual collections of the Association for several years.

Ben S. Lang, a prominent St. Louis grain man, has been elected a director of the American Trust Company. Mr. Lange gave up his grain business during the war, in order to do Y. M. C. A. work in France. He is a brother of Bert H. Lang, second vice-president of the United States Grain Corporation in the St. Louis zone.

A new grain firm, known as the Anderson-Ketchum Grain Company, has opened offices at 727 Pierce Building, St. Louis, and will do a general grain and commission business. Mr. Ketchum has been associated with the C. H. Albers Commission Company for 13 years and is well-known to the grain and milling trades. Mr. Anderson is equally well-known on the Merchants Exchange.

Edward Hunter of the Hunter Grain Company, is back on the floor of the St. Louis Merchants Exchange after a rather severe spell of gripe. He received a hearty welcome from his friends in the "cash corner."

William T. Hill, of the J. H. Teasdale Commission Company, St. Louis, made the first subscription, \$1,000, to a fund of \$40,000 being raised here for a home for working girls. A home is now maintained at 3658 West Pine Boulevard, but it is inadequate for the demands made on it.

Members of the St. Louis Merchants Exchange on Hospital Day recently subscribed nearly \$2,000 for a fund for the charity, and made the second best showing of any collection station in the city. D. R. Francis, ambassador to Russia, president of the organization, was given a public reception on the floor of the Merchants Exchange. He spoke against bolshevism, and pictured the terrible conditions in Russia under the rule of Lenin and Trotzky.

How close the milling and grain trade was to a coal famine when the strike was settled is shown by the following letter issued by the St. Louis Merchants Exchange on December 8: Milling and elevator interests, particularly the former, are keenly interested in the coal supply situation in St. Louis territory. Apparently elevator interests will be affected least of any in the event the supply of coal is stopped or production considerably curtailed. Most of the elevators in this territory use electricity and do not depend upon coal. The situation regarding flour milling interests in the St. Louis district is regarded in some quarters as being extremely serious. The Kehlor Flour Mills Company, one of the largest in this section, state they have only sufficient coal to operate until Wednesday, December 10. Saxony Mills, also large producers of flour, report that they have coal for possibly a week or eight days. This mill has ceased selling and is considerably behind in its orders. The Plant Milling Company have coal enough for this week and say they have been promised by coal dealers sufficient for their immediate needs. Stanard-Tilton Milling Company have coal enough to run them today, but a few cars are promised immediately which will prevent a shut down. An ironical situation may be observed in the case of the J. F. Imbs Milling Company, located practically next door to a Belleville, Ill., mine, but closed down for over a week owing to the impossibility of securing fuel. A representative of the Imbs company advises that they are behind in their orders; thus far have been unable to secure any encouragement from coal dealers as to when they will be taken care of. Valler & Spies Milling Company advise that they have sufficient coal for three or four weeks. A prominent miller regarding the situation said: "If

the mills are not allowed coal and are compelled to close down for any length of time, consequences will be frightful. While at present good stocks of flour are in the hands of millers and jobbers any interruption in the normal flow would be felt seriously along in January and February. These are the months when the consumption of flour is greatest on account of the scarcity of general farm produce." This miller said that he felt that the Fuel Administration should protect the flour milling industry in this coal crisis and pointed out the generous patriotic attitude of voluntary Governmental co-operation during the war on the part of the flour milling business.

Members of the St. Louis Merchants Exchange, at a special election on December 19, will vote on the following amendments to the rules:

Sec. 5. In case any property contracted for future delivery is not delivered at the maturity of the contract, the purchaser may, demand for the property having been made and money tendered (except such demand and tender has been waived by the seller), demand a settlement at the average market value of the property on the day of the maturity of the contract, or may purchase the property on the market for account of the seller during the same or the next business day, notifying him at once of said purchase, and any loss thus incurred by the purchaser shall be due and payable at once by the party in default; and the seller shall pay to the purchaser, as a penalty for said default of delivery an additional sum equal to five (5) per cent of the average market value of the property on the day of the maturity of the contract, but in no case less than five (5) cents per bushel on wheat, four (4) cents per bushel on corn and three (3) cents per bushel on oats; provided, that where the original purchase is made through a commission man, who buys on purchaser's account, then in the event of default, such commission man shall be entitled to an additional period of forty-eight (48) hours beyond the day of the maturity of the contract in which to make delivery, becoming liable to the purchaser for a like penalty.

On time contracts for grain, the time of delivery, upon days when the Exchange closes at 1:15 o'clock P. M., shall be between 10:00 o'clock A. M. and 2:00 o'clock P. M., inclusive, and a notice of delivery shall be served by the seller upon the buyer before 12:00 o'clock noon of the day of the proposed delivery, except upon the last business day of the month, when notice of delivery shall be served by the seller upon the buyer before 1:15 P. M. Upon days when the Exchange adjourns at 12:00 o'clock noon, delivery shall be made between 10:00 o'clock A. M. and 12:00 o'clock noon, inclusive, and notice of delivery shall be served before 11:30 o'clock A. M., except upon the last business day of the month, when delivery shall be made between 10:00 A. M. and 1:00 P. M., and notice of delivery shall be served before 12:00 o'clock noon.

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

WHILE the Southeast was somewhat upset for a few days over discrimination in placing that section under fuel regulations before other sections, she is fairly well satisfied in view of the fact that regulations were later made more severe in other sections. The industries of the South are working 48 hours a week, while milling plants are considered essential producers of food stuffs, and are running full time. General business operations have been placed on a seven hour per day basis, but manufacturers may operate 48 hours, and arrange their schedules to suit themselves.

When the correspondent of the "American Grain Trade" called the Kentucky Public Elevator Company, he was advised that elevator business was so blamed dull that 48 hours was a plenty. It seems that on account of high prices movement of corn and oats is very light, and concerns which formerly bought 15 or 20 cars at a time today are buying two or three cars, and not taking chances on a fluctuating market. The result has been that there are days when there is practically nothing to handle, and sometimes the plant is only operated every other day, in order to get a fuller run when steam is up, as it is hard to get coal for any kind of operations.

Many of the small elevators out through the state have been down due to shortage of fuel, but local plants have been able to secure supplies without any great inconvenience, although there have been times when conservation had to be employed to keep from running out. In isolated districts of the state mills as well as elevators have run entirely out, and have been out for days at a time. Now that the strike is over conditions are expected to show improvement, although it may be some weeks before they return to normal, and leading coal operators claim that it will be a year before general stocks are back to normal, which will mean a steady fight for fuel,

which will become worse in event of severe weather.

The strike settlement came just in the niche of time, as general traffic was threatened. More than 60 passenger trains had been taken off in the Louisville section, and traveling has become very slow and monotonous, as fast trains are generally off, and have become locals. Traveling has been ordered reduced to essential needs, and it has reached a point where there is danger of its becoming necessary to secure a permit to ride.

* * *

General business with the elevator companies has been very quiet, as retailers and jobbers of corn, oats, etc., are buying in minimum quantities, and total movement is dull. Oats are in fair demand, and some corn is moving, but much of the present handling is for corn millers and manufacturers of prepared feeds, oat chops, etc. Corn milling is very active with mills running 18 to 24 hours in many instances, and wheat mills are running on a 24 hour basis.

The wheat situation is unusual, and is the strongest that has ever been experienced at this season of the year, even during the war period. During the past few days wheat has advanced on the St. Louis market to around \$2.53 a bushel for No. 2, soft red winter which is forcing a price of \$2.60 on the Louisville market, with prospects of a further rise of probably as much as 25 cents a bushel. Since it became known that the Grain Corporation had let wheat come out, and was not holding wheat for domestic consumption, the market has lost its curb, or steadiness, and has gone wild.

Louisville grain men are expecting to see soft winter wheat go much higher due to the strength of spring wheat, hard winter wheat, etc. Northern dark has been out of sight, and No. 2 spring hit \$3.15 on the Chicago market some time ago. The Northwestern millers are unable to secure as much wheat as they need, and have been bidding up the price. They have started buying Kansas hard and soft winter, and are reported to be blending a great deal of flour. The Northwestern wheat demand is forcing prices on all varieties, and strengthening the holding movement among farmers.

A Louisville wheat buyer on December 10, stated that farmers, when asked about selling holdings, refused, and would say: "When wheat hits \$3, and not before then, you can call me up. I'm not sure whether I'll sell at that price, but I'm not going to sell for less for a long time to come." This shows that the farmers learned something during the past three years of steady advances through the milling season. It may result in a lot of wheat being on the market in late spring, but it can hardly result in a break under the Federal guarantee.

Since October 31, flour prices have advanced \$1.25 per barrel in Louisville, and feed prices are firm. The highest mill feed quotations show bran at \$45 a ton in 100-pound cotton bags; mixed feed, \$53; middlings, white, \$58. Hominy feed is quoted at \$62; scratch feed, \$68; cracked yellow corn, \$64.50; corn and oat feed, or chop, \$62.50. The demand for mill feed has been fair, but not great enough to force a high market, due to a mild fall. There is a heavy demand for manufactured feeds, especially sweet feeds, which are outselling mill feeds. Supplies of feeds are good, and dealers are not having any trouble in filling all demand. However, reduced operations in feed manufacturing plants may result in a stronger demand for mill feeds.

It is reported that in the Northwest and other sections mills are not figured as essential plants, and are not permitted to operate full, but the Southern flour mills as well as corn mills are operating full, which means a larger Southern production relatively. The lack of operations in other sections may result in better demand for Southern millfeed.

Sacks have gone so high that they are beginning to worry the trade. Ninety-eight pound flour sacks are costing 57 cents to the barrel; and feed bags are costing \$5.50 per ton of packing. Hundred-pound meal sacks are worth 25 cents each, and the market is going higher, as cotton is high and scarce.

* * *

The hay situation shows very little change. Farmers are asking high prices, and receipts are light due to the strong market, and shortage of cars. Hay men feel that the market is out of reach, and that there is a lower market in sight. No. 1 timothy, baled, car lots, is quoted at around \$31.50 a ton; No. 2, \$30; No. 1 mixed, \$31; No. 2, \$29; No. 1 clover, \$32; No. 2, \$30; wheat and oat straw, \$12; rye straw, \$13.

* * *

New corn is in good shape and comparatively dry, running better than usual. A good deal of new corn is being kiln dried for milling purposes, while some millers are still using a lot of old corn. New corn has been in generally light movement, as there hasn't been any big demand except from millers and feed manufacturers.

* * *

S. Thruston Ballard, president of the Ballard & Ballard Company, was installed as Lieutenant Governor of Kentucky on Tuesday, December 8, at the big inauguration at Frankfort, when Edwin P. Morrow took the chair for four years. This makes an ideal business combination, which promises to give Kentucky the best administration she has had in years. The office of the Ballard & Ballard Company, has become

a sort of political meeting place of late, with business men's gatherings held in the club room every few nights, as Mr. Ballard is working with Louisville business men in an effort to get the right angle on what is needed for the advancement of the state.

The Transportation Club, of Louisville, composed of the large grain, hay, lumber and general shippers, and representatives of the railroads, met at the Ballard & Ballard club rooms on December 10. At this meeting the principal speakers were S. Zorn, of the S. Zorn Company; Frank N. Hartwell, president of H. Verhoff & Co., grain handlers; and several railroad men.

Incidentally the Louisville District Freight Traffic Committee will pass out of existence on January 1, and this is taken to mean that Federal control of railroads will pass out of existence on that date. It is known that the Traffic Department, which was controlled by the Railroad Administration, has given up its lease on offices, and has arranged to disband at that time.

Car shortage has held up shipments repeatedly during the past few weeks, and caused inconvenience, especially to millers, but so far there have been no shut downs from this cause.

* * *

The Fehr Products Company, capital \$10,000; liability limit, \$20,000, has been incorporated by Andrew F. Fehr, Harry M. Brennan, Desha H. Harris and others, to operate a plant to manufacture sugar from malt. The Frank Fehr brewing interests are behind the company.

* * *

The Vincent-Hudgens Company, of Nashville, one of the largest elevator firms in the South, has opened offices with the Lack Redford Grain Elevator Company, at Paducah, and will erect a new elevator in Paducah. The offices that have been opened will be used until the company can erect its plant.

* * *

Wheat sowing in Kentucky as a whole was light, heavy rains preventing early sowing, and late sowing being prevented by frost and wet grounds.

* * *

The Louisville Milling Company has started work on a new warehouse addition, costing \$25,000.

* * *

The Cottonseed Products Company, Louisville, is starting work on the third of its burned buildings and is putting in concrete construction, rebuilding costing about \$100,000 in all.

* * *

The Frankfort Grain Products Company, capital \$100,000, has been incorporated by J. P. Williams, W. J. Gorman and others.

* * *

The Ballard & Ballard Company, millers and feed manufacturers, are well along with improvements on the corn mill, and plan to manufacture a general line of feeds as soon as the improvements are completed. All classes of stock and poultry feeds will be made as well as sweet feeds in the new department.

BUFFALO

ELMER M. HILL - CORRESPONDENT

REPRESENTATIVES of Buffalo elevator and grain interests who attended the National Rivers and Harbors Congress in Washington registered their opposition to the proposed assistance by the United States in deepening the St. Lawrence River into an inter-oceanic waterway. It was charged that the project would cost millions and would prove of little or no benefit to shippers of grain in the Middle West.

Not only was opposition based on the fact that it might interfere with large investments in grain elevators at Buffalo, but it was pointed out by experienced grain shippers that lake grain carriers would have to proceed through the channel at a rate of speed not faster than four miles an hour; the danger of collision and accidents would be greatly increased and it would take longer to transport grain from the Middle West to the Seaboard by this route than by the present route to Buffalo and by rail to the Eastern Seaboard.

The Buffalo Chamber of Commerce and affiliated organizations, including members of the Corn Exchange of Buffalo have gone on record as bitterly opposing the project. The Executive Committee of the New York Board of Trade has pledged its support to the Chamber of Commerce and grain interests at Buffalo in their campaign in opposition to the project. Referring to the Lenroot Resolution passed by the House last March as part of the Rivers and Harbors Bill, the report of the New York committee says:

"It is futile to look to the St. Lawrence River for a cheaper route of transporting grain and other products from the Great Lakes to the ocean than now exists via the New York State Barge Canal. The St. Lawrence River can never be made attractive or commercially successful to lines of ocean steamers be-

tween lake ports and foreign ports. The movement would involve the United States in a wasteful expenditure of several hundred millions of dollars of which the state of New York would have to pay from \$30,000,000 to \$50,000,000, for a measure avowedly designed by its promoters to do us injury."

M. J. Higgins, superintendent of the Weehawken Elevator at Weehawken, N. Y., and formerly assistant superintendent of the City Elevator in the Buffalo harbor, was a visitor in Buffalo recently.

Less than 85,000,000 bushels of grain have been handled by waterfront elevators at Buffalo this season as compared with approximately 95,000,000 bushels for the corresponding period of a year ago and 200,000,000 bushels in 1898, the banner year in the history of the port. The winter storage fleet this year is the smallest in the history of the port. Only a few cargoes will be held in bottom storage this winter. The elevators are holding quite a considerable quantity of grain for export but the elevators are far from filled. Grain men and elevator owners are quite disappointed over the conditions of the past summer.

The Detroit & Cleveland Navigation Company of Detroit, Mich., is preparing to construct a fleet of barges for operation over the New York State Barge Canal between Buffalo and New York to be operated by heavy duty oil burning engines. The boats would be used for hauling grain and grain products over the state waterway, issuing through bills of lading to shippers for freight originating at points along the route to any point on the lakes and acting as a connecting carrier to lake lines.

Many of the city's prominent grain merchants and elevator operators have enlisted in the army of Thrift Citizens in Buffalo through the purchase of Treasury Savings Certificates. The movement in Buffalo being fostered by the Government Loan Organization in conjunction with the Second Federal Reserve Bank is calling upon the men and women of the city to adopt the slogan "work and save." Among those who have become actively identified with the movement are the Carver-Dickinson Seed Company and the Monarch Engineering Company.

INDIANA DEALERS TO MEET

Secretary Charles B. Riley of the Indiana Grain Dealers Association announced that the annual meeting of that organization will be held at the Board of Trade, Indianapolis, January 15, beginning at 10:00 a. m. E. K. Shepperd has charge of the entertainment features and something original along this line is expected. Mr. Riley promises that the program will be one of profit and interest to all grain dealers.

The Indiana Millers Association will meet on the following day.

NEW TRAFFIC REGULATIONS

The following demurrage rule has been published, we are advised by J. S. Brown, manager, Transportation Department, Chicago Board of Trade, which became effective December 1, 1919, for grain, seeds, grain screenings and seed screenings: "On all grain held in transit, subject to Federal or state inspection, and on seeds (field or grass), grain screenings or seed screenings, held in transit, subject to recognized official inspection, free time for disposition will expire at 6:00 P. M. of the day that inspection is reported by the inspection authorities on or before 11:00 A. M. No additional free time will be allowed for reinspection or appeal. The bulletin form of notice may be used in lieu of written notice of arrival to the consignee."

Attached hereto is copy of the instructions issued by the terminal manager here giving the details of the operation of the new rule.

Please note that prior and subsequent to the time that the representatives of the carriers are on the Exchange Floor, disposition orders may be filed with, and bills of lading receipted for by, a representative of the carriers connected with the Transit Department, Eastern Freight Inspection Bureau, now stationed in Room 14, Board of Trade Building. While the time for filing disposition orders free from demurrage runs to 6:00 P. M. of the day that inspection is reported by 11:00 A. M., the trade is urged to continue the present practice of giving orders by 2:00 P. M. to the greatest extent possible. It is readily appreciated that orders not in the hands of the yard men by, at least, 4:30 P. M. cannot be acted upon the same day, resulting in the cars not being switched out of the yards until the following day. This is a very important matter both to shipper and carrier, in the interest of conserving the use of equipment and saving as many car days as possible, especially at this time of extreme car shortage.

As to seeds, grain screenings and seed screenings, where sampled by the Board of Trade Sam-

pling Department, the free time for disposition will expire at 6:00 P. M. of the day that samples are delivered by the Board of Trade Sampling Department on or before 11:00 A. M. It is very important, therefore, that the trade co-operate with the Board of Trade Sampling Department in giving that department prompt advice of shipment of these commodities.

Our Bulletin 493 sets forth the new reconsignment rule effective on or about December 1, 1919. Under such rule there is a consignment charge of \$2 per car in addition to any demurrage charge where disposition order is given subsequent to the expiration of the free time under the demurrage rule.

METHODS GOVERNING GRAIN INSPECTION SUBSEQUENT TO NOVEMBER 30

The new demurrage rule governing free time for the disposition of grain, etc., held for Federal, state or official inspection, effective Monday, December 1, 1919, reads as follows:

Rule 2—Free Time Allowed: (Exception).

"At Chicago, Illinois and Kansas City, Kansas-Missouri. On all grain held in transit, subject to Federal or state inspection, and on seeds (field or grass), grain screenings or seed screenings, held in transit, subject to recognized official inspection, free time for disposition will expire at 6:00 p. m. of the day that inspection is reported by the inspection authorities on or before 11:00 a. m. No additional free time will be allowed for re-inspection or appeal. The bulletin form of notice may be in lieu of written notice of arrival to the consignee."

As the free time for furnishing disposition under the new grain inspection rule expires at 6:00 p. m. of the date inspection is reported on or before 11:00 a. m., it has been deemed advisable in order to promote co-operation and effect the prompt handling of disposition orders filed by consignees, to establish a central office in the Board of Trade Building where consignees may lodge orders and surrender bills of lading for which a proper receipt will be given up to 6:00 p. m. This will be accomplished by designating the Board of Trade Agency as representative of all lines to accept and act upon disposition orders filed there. Agents who are now sending representatives to the Board of Trade to pick up orders filed prior to 2:00 p. m. may continue that practice.

To promote car efficiency also uniformity in the handling of grain there has been adopted for this district, a combination grain bulletin notice and car card.

This combination bulletin notice and car card (sample attached) is put up in sets consisting of the following:

(1) A white copy to be delivered to consignee with the grain sample by the State Grain Inspection Department, after sample has been graded.

(2) A pink copy for use of agent only, as a record from which demurrage free time will be computed.

(3) A yellow copy for use of the State Grain Inspection Department as a permanent record.

(4) A car card, distinctive in appearance and entirely different from any other card in use. It first serves as notice to yardmen and grain samplers that the car so carded is a car of grain held for sampling. The end portion of the card is perforated and is to be removed by the grain sampler after sample has been drawn, the removal changing the card so that it is distinguished from its original appearance, and in its changed form serves as notice to yard men and others concerned that the car has been sampled and is now being held for disposition. The back of the removed portion of the card is to be used by the sampler for making memorandum of car initial, number, name of consignee, contents, and the number of the seals broken.

This office will furnish an initial supply for approximately 30 days' use and it is desired that each road furnish their own future supplies.

Attention is called to the importance in the issuance of bulletin notices, of showing all the information called for by the form, especial attention being drawn to the necessity of showing the hour as well as the date such bulletin notices are issued. The bulletin notices may be numbered. The lower portion of the white copy of the bulletin notice below the heavy black line headed "For use of State Grain Inspection Department," is for their sole use.

All three copies of the bulletin notice must be delivered by the yard office to the sampler who will indicate in space headed "Sampler receipt stamp here" the date and hour bulletin notices are received by him.

INSPECTION OF GRAIN AT STATE GRAIN INSPECTION HEADQUARTERS

Where grain is inspected at the main office of the State Grain Inspection Department all three copies of the bulletin notice will be placed by the grain sampler in the bag with the sample and when grade is given the date of inspection and whether before 11:00 a. m. or after 11:00 a. m. will be stamped on all three copies in the space headed

"Grain Inspector's Stamp Here." The consignee's copy will then accompany the grain sample to the Board of Trade, the agent's copy will be retained in the Grain Inspection office to be later gathered up by the carrier's representatives, and the State Grain Inspection Department's copy will be retained on file as a permanent record.

INSPECTION OF GRAIN AT OUTER YARDS

Where grain is given in one of the outer inspection offices, the samplers will handle the bulletin notices in like manner; but the grain inspectors, in addition to placing the consignee's copy in the bag with the sample, will place the agent's copy and the State Grain Inspection Department's copy in packages in the baskets containing the inspected samples, also a list made up in triplicate which will show date, name of inspector and number and initial of the cars represented by the samples in the basket. If such samples reach the floor of the Board of Trade before 11:00 a. m., demurrage free time will be computed from the inspection stamp date shown on each of the bulletin notices.

However, if such samples do not reach the Board of Trade until after 11:00 a. m. then a representative of the carriers stationed on the floor of the Board of Trade will stamp each of the sheets showing inspection reported after 11:00 a. m., the copy of such sheet to be retained by the carrier's representative, the second copy to be sent to J. S. Brown of the Board of Trade, representing the consignees and the third copy to be given to the State Grain Inspection Department for a permanent file. Where the sheets are so stamped, the State Grain Inspection Department's representative will at once re-stamp the Agent's and State Grain Inspection Department's copies of the bulletin notices and the free time for disposition will be computed according to the corrected date. The delivery of the samples to consignees will not be delayed for the purpose of re-stamping the consignee's bulletin notice.

The Joint Railroad Office will collect agent's copy of bulletin notices from Grain Inspection Department and arrangements should be made by agents to have a messenger call at that office at stated times for the purpose of picking up such bulletin notices, also any disposition orders, bills of lading, etc., taken up by him.

It is understood that the procedure outlined with respect to grain inspected by the State Grain Inspection Department will apply also to seeds and screenings (grain or seeds) sampled by the Board of Trade Sampling Department.

STATION DEMURRAGE RECORDS ON GRAIN

With the inauguration of the new grain inspection rule effective December 1, it is essential that an accurate record of the handling of cars loaded with grain, be maintained, this record to give a complete history of each car of grain from the time of its arrival until its final forwarding.

The importance of keeping this record cannot be too strongly urged so that you can readily determine whether cars are being unnecessarily delayed and if so where such delay is occurring and apply the necessary remedy.

ANNUAL HAY REPORT OUT

The official report of the annual meeting of the National Hay Association, July 16-18, has just been issued, the delay having been caused by labor troubles in the print shop where the work was done.

But in spite of the fact that the convention is almost forgotten, hay men everywhere will find the report of great interest. It has a number of illustrations of some of the less known hays and legumes besides the likenesses of the retiring and new presidents and Secretary J. Vining Taylor.

The excellent printing and substantial binding of the report, and its convenient size, makes it a volume to be kept for perpetual reference, and there is much valuable statistical matter as well as Association membership, trade rules, etc., that will insure its having a permanent place on every hay dealer's desk.

Mr. Taylor always does a good job with this report, and the present volume is no exception.

THE grain harvest of Ireland was badly damaged by a plague of crows. It is not reported whether the crows were Sinn Feiners or Ulsterites.

THE British Board of Agriculture announces that arrangements have been made whereby flour millers will be in a position to purchase all home-grown wheat of the 1919 harvest at such prices as will produce for the whole crop an average gazette price of 71s. 11d. (\$17.50) per quarter of 480 pounds, equal to 75s. 6d. (\$18.37) per quarter of 504 pounds. The market will be free, and each sample of wheat will be bought on its merits; every seller will have to make the best terms he can under the ordinary pre-war conditions of a free market, and will not have the right to call upon a miller to buy at 75s. 6d. or any other price.

ELEVATOR AND GRAIN NEWS

EASTERN

Capitalized at \$50,000, the Apex Flour Company has been incorporated at Hoboken, N. J. The firm will handle grain, flour, etc.

The C. H. Northam Company and Garber Bros. of Hartford, Conn., have consolidated and will enlarge their grain storage facilities.

The elevator and warehouse of the Heard Bros. at Providence, R. I., which burned is being rebuilt. The Heard company handles feed and flour.

The contract has been let by the Shredded Wheat Company of Niagara Falls, N. Y., for an additional elevator of 500,000 bushels. The elevator is to be started in the spring.

The Archer-Daniels Company of Buffalo, N. Y., is building a steel and concrete warehouse at a cost of \$20,000. The firm will also make an addition to the boiler house costing \$3,000.

The Liberty Hay & Grain Company has been incorporated to operate at Brooklyn, N. Y., by Simon A. Pote, I. Goldberg and S. Pedelsky. The capital stock of the firm is \$10,000.

CANADA

The Wolfe Elevator Company will build an addition to its elevator at Delia, Alta.

The Farnham Grain Company has been registered to operate at Farnham, Que.

The Progressive Farmers Grain Company, Ltd., of Edmonton, Alta., has been incorporated with a capital stock of \$50,000.

L. N. Jourdain is installing an automatic balance and pocket balance scale in his grain elevator at Three Rivers, Que.

The British American Elevator, Winnipeg, Man., and the R. B. McLean Grain Company each subscribed \$50,000 to the 1919 Victory Loan.

The United Grain Growers of New Westminster, B. C., have taken over the Burret Elevator on Falls Creek, B. C., capacity of which is 100,000 bushels.

The Portage Milling & Transfer Company of Portage la Prairie, Man., has increased its capital stock to \$300,000. The company will conduct a general grain and flour business.

The grain business of the Jas. W. Mohler Elevator Company with grain elevators at Round Hill, Ströme and Chaton, Alta., has been sold. The company is no longer in the grain business. Wm. Mohler was manager of the company.

The ninth annual meeting of the Saskatchewan Co-operative Elevator Company was held in Regina recently. Net profits for the past year totaled \$193,000, out of which an 8 per cent dividend is being paid. The reserve fund now stands at \$1,000,000.

The annual meeting of the United Grain Growers, Ltd., was held not long ago. Reports showed profits for year ending August 31 of \$148,549. The paid-up capital stock of the company consists of \$2,415,000 and the reserve is \$1,500,000. The company handled 22,000,000 bushels of grain in 1919 and 29,000,000 bushels in 1918. A 6 per cent dividend was paid this year.

E. W. Kneeland of Winnipeg was elected a director of the Merchant's Bank of Canada at a meeting of the Board held recently in Montreal. He is general manager of the British American Elevator Company, vice-president of the Port Arthur Elevator Company and also vice-president of the Saskatchewan Elevator and Liberty Grain Companies. Mr. Kneeland is also a member of the Board of Directors of the following: The National Elevator Company, Home Grain Company, Grain & Produce Exchange and a member of the Winnipeg Grain Exchange.

OHIO AND MICHIGAN

O. M. Clark's elevator at Cable, Ohio, has been purchased by J. M. Mabry.

Edw. Cody & Son have purchased the Snodgrass & Fullington Elevator at Marysville, Ohio.

Latham Bros. of Amlin, Ohio, have dissolved partnership. Raymond Latham has taken over the Amlin elevator and Walter Latham the Hayden establishment.

The Coopersville Co-operative Elevator, recently incorporated at Coopersville, Mich., has purchased the elevator of M. Denham. Possession is to be

given on January 1. Paul Rohn will be manager of the establishment.

The Farmers Grain & Supply Company has been organized at Newberry (Covington p.o.), Ohio.

Farmers are organizing to build several new elevators around Kenton, Ohio, in Hardin County.

Capitalized at \$20,000, the Henderson Co-operative Elevator Company has been incorporated at Henderson, Mich.

The Pollock Grain Company has moved its wholesale grain and hay offices back to Middle Point, Ohio. The company has closed its Lima, Ohio, office.

The elevator, mill and electric plant at Fowler, Mich., has been purchased by the Farmers Elevator Company. The capital stock of the firm has been increased.

E. A. McGeorge & Son are succeeded at Gladwin, Mich., by the Gladwin County Co-operative Association. The company was just recently incorporated and is capitalized at \$75,000.

New machinery has been installed in the completed addition of the Plains Co-operative Company at Isleta, Ohio, which has a capacity of 12,000 bushels. A new office has also been built.

A warehouse at Hamilton, Ohio, has been purchased by A. M. Graham of the Miami Milling Company of Oxford. The building will be enlarged and Mr. Graham will handle grain, feeds of all kinds and flour.

The plants of the Vassar Milling Company and the Reliance Milling Company at Vassar, Mich., and the Watrousville, Mich., elevator have been purchased by the Vassar Farmers Elevator Company. Ground has been broken for an elevator at Watrousville and a new bean cleaner and other machinery is to be installed. New machinery will replace the old at Vassar.

The United States Chemical Company has purchased and taken control of the Helm & Ries Grain Elevator at Greenville, Ohio. The elevator was built by the partnership of Helm & Ries 20 years ago and has been operated by them until a few weeks ago when ill health caused H. C. Helm to retire from active management of the company. The partnership was then dissolved. The new owners expect to continue the grain business and will also engage in the wholesale feed business. New machinery is to be installed in the plant in the near future.

WESTERN

J. J. Taylor has disposed of his elevator at Paoli, Colo., to the Crescent Mill & Elevator Company.

Harold W. Eller is succeeded in business at Sterling, Colo., by the Eller Grain Company.

A. T. Samuels and L. A. Shibley have made plans for the erection of a grain and hay warehouse at Ilwaco, Wash.

The warehouse at Echo, Ore., has been leased by the Umatilla Flour & Grain Company of Pendleton, Ore., from Thomas Ross.

To conduct a grain and feed business, the P. F. Brown Company has been incorporated at Lewiston, Mont. Its capital stock is \$100,000.

I. P. Nissen's interest in Nissen & Jacobs, dealers in grain, feed, hay, coal and seeds at Harlowton, Mont., has been taken over by C. H. Dickman.

The Johnson Grain Company has been incorporated at Spokane, Wash. C. E. and H. S. Johnson are interested. The company is capitalized at \$30,000.

An office and laboratory is being built this winter to the new plant of the Globe Grain & Elevator Company at Ogden, Utah. The structure is to be of concrete.

A new 300,000-bushel elevator, warehouse and office has been completed at Montpelier, Idaho, for Frank Miles. The elevator is equipped with two non-chokable elevator legs, two automatic scales, a No. 5 Monitor Receiving Separator and controllable wagon dumps.

The warehouse at Spokane, Wash., which the Idaho Bean & Elevator Company of Troy, Idaho, has been leasing and using as its Spokane grading and distributing quarters has been purchased by the Idaho company. The building is 65x90 feet, four stories and basement.

The Gill Trading Company of Gill, Colo., is succeeded in business by the Gill Farmers Co-operative Produce Company. The Trading company's

elevator and warehouse has been purchased by the farmers. W. A. Umbarger is manager, succeeding J. H. Witwer.

The McCaull-Webster Elevator Company has appointed H. H. Hillman of Oshkosh, Wis., as manager of the elevator at Square Butte, Mont. A. J. Fuller recently resigned as manager of this house.

A new 25,000-bushel elevator is to be constructed at Peetz, Colo., for the Peetz Grain Company, replacing the old wooden house that was formerly owned by the Colorado Elevator & Grain Company.

The Farmers Elevator Company is succeeded at Winifred, Mont., by the recently incorporated Winifred Mill & Elevator Company. The company is operating the elevator, but the mill is not yet completed.

The Lincoln Milling Company of Lincoln, Wash., is rebuilding its mill and elevator there which burned last May. The new elevator will include eight storage bins each of 20,000 bushels' capacity. The new mill will cost \$20,000.

SOUTHERN AND SOUTHWESTERN

A grain elevator is to be erected at Sulphur, Okla., for E. J. Webb of Butler.

A grain elevator will be built in the spring at Hansford, Texas, for A. Tomlinson & Son.

A new grain and produce house has been opened at Sulphur, Okla., by Anderson & Pryor.

The elevator of Oscar Jones at Newellton, La., is being torn down and will be rebuilt at Chrisman, Ill.

A grain elevator is to be constructed at Panhandle, Texas. About \$7,300 have been subscribed already.

The United States Wheat Director has revoked the license of the Lawton Grain Company of Lawton, Okla.

The \$75,000 elevator of the E. C. Rall Grain Company at Fort Worth, Texas, which burned, is to be rebuilt.

A new 15,000-bushel elevator is to be built at Plainview, Texas, for the Harvest Queen Mills. The elevator will be iron clad.

Bagley & Semmes of Chattanooga, Tenn., have a warehouse for handling grain, hay and feeds. Their offices are now located on Boyce Street.

Additions costing in the neighborhood of \$7,000 are to be made to the building of the Columbia Grain & Provision Company at Columbia, S. C.

The license of G. C. Monroe of Grove, Okla., to conduct a wholesale grain business has been revoked by the United States Wheat Director.

O. B. Westervelt, Walter Helfer and J. R. Autry have incorporated the Weleetka Mill & Elevator Company of Weleetka, Okla. Capital stock is \$10,000.

A new cleaner has been installed in the plant of the T. D. Guy Grain Company at Trail, Okla. T. D. Guy is president and general manager of the firm.

Capitalized at \$30,000, the Egan Warehouse & Feed Company has been incorporated to operate at Egan, La. J. N. Leger is president; D. Leger, secretary.

The Binger (Okla.) Grain Company's business has been purchased by Eilson & Co. The plant has been thoroughly overhauled and new and modern machinery installed.

Incorporation papers have been filed at Dundee, Texas, as the Dundee Elevator Company, capitalized at \$6,000. J. C. Hunt, W. F. Woodrum and Chester Morgan are interested.

T. D. Watkins and John D. Gather of Pecos, Texas, will conduct a wholesale grain business at El Paso, Texas. They will lease a warehouse as soon as a suitable one is found.

Edgar Brantley and L. L. Lowe have formed a new company at Tullahoma, Tenn., and under the name of Brantley, Lowe & Co., will conduct a grain, feed and grocery business.

The Interstate Grain Company of Fort Smith, Ark., and the Kramer Fair Milling Company at Tonganoxie, Kan., has been purchased by the Durrett Grain & Flour Company. The Durrett company with this purchase has acquired three grain plants during the past 18 months. The new prop-

erty includes an elevator of 125 cars' capacity. The Durrett company is also opening a branch at Tulsa, Okla., and is building a plant at Little Rock, 140x 700 feet of brick construction.

A company is building a new elevator and mill at Wewoka, Okla. G. T. Strickel of Oklahoma City, Okla., is at the head of the company which will be capitalized at \$25,000.

The Phoenix Elevators of Celina, Texas, have made application to be permitted to resume its old name of Celina Mill & Elevator Company. It operated under the name until the plant was burned three years ago.

A new elevator and mill is being built at Amarillo, Texas, for the Oklahoma City Mill & Elevator Company of Oklahoma City. E. R. Humphrey, it is said, will be manager of the mill. The elevator is practically completed.

The farmers' company mentioned in our columns a couple of months ago as being organized at Aberrathy, Texas, is to operate as the Farmers Coal & Grain Company. It is capitalized at \$6,500. L. S. Heggen, C. F. Burke and W. A. Harrell are interested.

A 50,000-bushel elevator of concrete construction; a 49x100-foot warehouse; a three-story 32x60-foot brick and concrete mill construction building is to be erected at Abilene, Texas, by the Yarbrough Mill & Grain Company of which Yancy P. Yarbrough is owner.

A large grain elevator is to be installed at Paducah, Ky., for the Vincent-Hudgens Company of Nashville, Tenn. The company has opened temporary offices with the Lack-Redford Grain Elevator Company until it can make arrangements for permanent offices and a new plant.

Marks & Anderson conducting a grain and hay business at Nashville, Tenn., have sold that business to Owen & Moore Grain Company, a new company consisting of James G. Owen and Drew C. Moore. Marks & Anderson have moved to Memphis, Tenn., where they will operate in the near future.

The elevator owned by the McQueen Grain Company at Hereford, Texas, has been purchased by the Kemp & Kell interests of Wichita Falls, Texas. The management of the plant will be taken over the first of the year. The Kemp & Kell company is now building an \$800,000 elevator and mill at Amarillo.

MINNESOTA AND WISCONSIN

Operations have commenced in the new Farmers Elevator at Durand, Wis.

The grain elevator at Backus, Minn., has been purchased by farmers around there.

The tile warehouse of the Farmers Elevator Company at Triumph, Minn., has been completed.

The elevator located at Syre, Minn., has been purchased by Geo. Moebeck, formerly of Ulen, Minn.

The Forestville Grain & Feed Company has been incorporated at Forestville, Wis. Its capital stock is \$10,000.

A reinforced concrete elevator is to be built at Alpha, Minn., for the Farmers Co-operative Society this spring.

The Afton, Minn., elevator of Jameson & Hevener of Minneapolis has been sold to the Equity Society of that town.

The elevator of J. E. E. Stockdale at Dunnell, Minn., has been sold to Hubbard & Palmer Company of Mankato.

The Equity Elevator Company of St. Paul has purchased the elevator of the Pacific Elevator Company of Gaylord, Minn.

The operations in the National Elevator at Melrose, Minn., have been stopped. Henry Primus has resigned as manager.

Clyde Seybel succeeds W. A. James as manager of the elevator at Grogan, Minn. Mr. James has moved to Vernon Center.

The Farmers Elevator Company which has been operating at Monterey, Minn., has surrendered its charter and gone out of business.

Reorganization has taken place at the plant of the Farmers Elevator Company at Currie, Minn. O. D. Smith is manager of the company.

C. E. Peterson is manager of the warehouse which the Beltrami Elevator & Milling Company will establish at International Falls, Minn.

Farmers Elevator Company's elevator at Wells, Minn., is being overhauled and put into splendid condition. C. F. Lanworthy is manager of the firm.

Frank Perske recently purchased the Neils Elevator at Sauk Rapids, Minn. In the future he will conduct the plant under the name of the Sauk Rapids Elevator Company.

Twenty feet are being added to the top of the elevator of the M. B. Helmer Milling Company of Fond du Lac, Wis., increasing the capacity material-

ly. New power unloading apparatus is being installed. The improvements are to be completed by January 1.

The interest of Geo. Moebeck in the grain elevator known as the Knutson & Moebeck Elevator at Ulen, Minn., has been purchased by Ole Knutson.

Capitalized at \$25,000, E. O. Wright, E. M. Scott and James Brackett have incorporated at Elk Mound, Wis., as the Elk Mound Elevator Company.

The old Farmers Elevator Company of West Concord, Minn., has been discontinued. Those interested are planning, it is reported, on the erection of a new elevator and the organizing of a new company.

A new cleaner and a 10-ton scale with auto dump has been installed at the elevator of the Farmers Elevator Company, of Maynard, Minn. The company has built a new feed and flour house of five cars' capacity.

A grain, hay, feed and flour depot has been opened at Chisholm, Minn., by the Merchant Warehouse Company of Hibbing, Minn. The business is to be conducted under the management of Arthur Forselius.

Work has been completed on the new elevator of the Red River Milling Company at Fergus Falls, Minn. The old elevator of the milling company was destroyed during the cyclone which caused much damage some time ago.

The property of F. H. Shepard & Co., at Stanton, Minn., including an elevator and residence, has been sold to Mr. Lund of Briceville, for \$10,000. Mr. Lund took possession on December 1. Failing health caused Mr. Shepard to dispose of his property.

IOWA

The Buck Grove, Iowa, elevator of Henry Scotts of Dow City, Iowa, has been sold to Garland Scott, his nephew.

P. J. Harvey's elevator at Gowrie, Iowa, has been purchased by J. A. Pirie. Possession was given at once.

The capital stock of the Colwell (Charles City p. o., Iowa) Grain Exchange has been increased from \$10,000 to \$20,000.

A 20-inch attrition mill, together with two 15-horsepower motors, is to be installed in the elevator of L. W. Brook at Kaloma, Iowa.

A fireproof elevator to replace the one which burned is to be constructed at Le Mars, Iowa, for the Farmers Elevator Company.

The Farmers Elevator Company has equipped its elevator with a new 1,200-bushel sheller and 15-horsepower Fairbanks Motor at Kellogg, Iowa.

The farmers around Shannon City, Iowa, have formed a company. The elevator at Shannon City, owned by Frank Hoops, will be purchased by the new concern.

The Farmers Co-operative Elevator at Denison, Iowa, has been sold to the Farmers Union. Possession is to be given on January 1, 1920. Consideration was \$7,000.

The elevator of the Farmers Grain Company at Grand Junction, Iowa, has been purchased by Delbert Cramer. The firm will be known as the Junction Grain Company.

The J. L. Bruce Elevator and cribs at Odebolt, Iowa, have been purchased by the Co-operative Farmers Elevator Company. The purchase price is said to have been \$45,000.

A 24-inch indirect connected attrition mill, electrically operated, equipped with two 20-horsepower motors is to be installed for the Winfield Elevator & Supply Company of Winfield, Iowa.

Incorporation papers have been filed for W. H. Bartz & Co., of Des Moines, Iowa, capitalized at \$1,000,000. The organizers are: W. H. Bartz, H. D. Harding, W. S. Gay, M. M. Moberly and A. H. Thomas.

A 1,000,000-bushel elevator, it is reported, will be erected at Des Moines, Iowa, for the Planters Terminal Elevator Company. The company is backed by Ralph Bolton, Ralph Reed, A. M. Parmenter and Geo. Close.

Electric motors are to be installed in the elevator of the Lone Tree (Iowa) Farmers Co-operative Union Exchange. A 20-horsepower motor will operate the corn sheller and a 15-horsepower motor will provide power for the remainder of the plant.

The Farmers Elevator Company operating at Farragut, Iowa, has changed its business from a corporation to a profit-sharing company. The directors are: Sam McMullen, president; Chas. Comstock, vice-president; Tom Cox, secretary; Ray Cox, treasurer.

A 1,500-bushel automatic scale; complete new leg to handle ear corn; new distributors and spouting; and roller bearings are to be installed in the plant of the Brodwell Lumber & Grain Company at Hedrick, Iowa. The capacity of the plant is to be increased by raising the cupola and adding 12

feet more cribbing. A motor is to be installed in the cupola. The contract has been let and equipment purchased.

The Burrell Engineering & Construction Company has been awarded the contract by A. D. Hayes & Co., of New London, Iowa, for a new elevator of concrete construction and of 25,000 bushels' capacity. The company operates about 10 other elevators at different stations.

Smith & Son's elevator at Lake View, Iowa, has been purchased by the Farmers Union. The Smith firm recently purchased the property from C. P. Armstrong. The new farmers' company will operate as the Farmers Union Grain Company with Walter Hynes as manager.

Operations have been started in the elevator of the Martens & Ketels Milling Company of Sioux City, Iowa. The elevator is of concrete and has a capacity of 50,000 bushels. Additional tanks are to be built in the spring increasing the capacity to 150,000 bushels. The plant is run by electricity.

INDIANA

A 15-ton Fairbanks Scale has been installed in the elevator of J. S. Sellers at Fairland, Ind.

A cement grain elevator is being erected at Millersburg, Ind., for Lyon & Greenleaf of Ligonier.

The Fayette Grain Company of Connersville, Ind., has completed its elevator and started operations.

Farmers around Foresman, Ind., are interested in the formation of a company to build a grain elevator there.

Doane & Hillis of Frankfort have purchased the two elevators of the Davis Grain Company at Clarks Hill, Ind.

Everett McClure's business at Aurora, Ind., has been purchased by the Early & Daniels Company of Cincinnati, Ohio.

Miller & Walker's elevator at Flora, Ind., has been purchased by the McCorkle Bros. & Riley. Immediate possession was given.

The Messick Elevator at New Castle, Ind., has been purchased by P. Millikan & Son. Mr. Millikan recently sold his elevator at Blountsville.

The elevator site at Newport, Ind., has been purchased by the National Elevator Company of Indianapolis, which will erect a grain elevator there.

A new warehouse and coal sheds are being built at Herr (Lebanon p. o.), Ind., for Kerr, Kirtley & Herr Company. The firm succeeds Herr & Jenkins.

The Farmers Elevator Company has been incorporated at Selma, Ind., capitalized at \$10,000. Chas. H. Guthrie, W. J. Clark and C. W. Heston are the directors.

Oliver Schneck, A. E. Bard and Jas. A. Quick have incorporated the Waynetown Coal, Lumber & Grain Company of Waynetown, Ind., capitalized at \$15,000.

P. Reising & Son have installed a new engine in their elevator at Poseyville, Ind.; also a new sheller, cleaner, auto scales, manlift and overhead wagon dump.

Julius Artes has resigned his position as superintendent and manager of the Union Elevator at Evansville, Ind. He has been with the company for 37 years.

E. E. Gandy's interest in O. Gandy & Co., at South Whitley, Ind., has been purchased by Moses and Louis Mayer. This includes the elevator, lumber yards and bank.

The Coatesville (Ind.) Elevator & Feed Company has been incorporated, capitalized at \$15,000. The directors are: Frederick A. Rouse, Jas. T. Sutherland and Ollie J. Larkin.

Clyde N. Chattin, C. Shultz and Oliver J. Rowe have filed incorporation papers at Indianapolis, Ind., as the Union City Elevator Company. The company is capitalized at \$25,000.

The company mentioned in last month's issue as organizing at Gessie, Ind., will be conducted under the name of the Gessie Grain Company. Its capital stock is \$25,000. A. L. Rudy, Gus Lesley, Jas. W. Hinds, C. Jones and Thomas Hines are interested.

THE DAKOTAS

A 40,000-bushel elevator is to be built at Bath, S. D., for the Bath Exchange next spring.

The Farmers Elevator Company of St. Joseph, N. D., is building a new 35,000-bushel, 20-bin elevator.

The capital stock of the Farmers Co-operative Elevator Company at Bruce, S. D., has been increased.

A new elevator is to be built next spring, it is reported, at Elk Point, S. D., for the Wm. Slaughter Grain Company.

The Merchants Elevator Company has disposed of its elevator at Sioux Falls, S. D., to J. E. Arnold of Flandreau, S. D., for the stipulated price of

\$6,000. The elevator has a capacity of 45,000 bushels. Mr. Arnold will take possession of the elevator next April.

The elevator at Huron, S. D., recently purchased by the Farmers Co-operative Company, is being remodeled by it.

The Farmers Elevator Company of Sterling, N. D., has raised its capital stock to \$100,000 and the shares of the stock from \$50 to \$100.

Frank Smith's elevator at Avon, S. D., has been purchased by the recently incorporated Farmers Elevator Company. A. J. Macy is manager.

An electric motor has been installed in the elevator of the Cargill Elevator Company at Hankinson, N. D. H. J. Schuster is manager of the firm.

The Farmers Union Elevator Company of Hurley, S. D., has purchased the elevator of J. H. Farnsworth. C. L. Williams is manager of the plant.

A double stand of legs has been installed in the elevator of the Equity Exchange at Glenham, S. D. Other improvements have also been made to the elevator.

Operations have been started in the Farmers Elevator at Miller, S. D. Chas. Thomson is manager of the firm. The company handles, in addition to grain, coal and flour.

John McQuillen has entered into the grain business at Sioux Falls, S. D., and will operate as the Sioux Grain Company. He was formerly in the grain business at Ponca, Neb.

The M. E. Hefner Company of Sturgis, S. D., has erected a new grain elevator at Newell, S. D. The completion of this elevator makes two elevators in operation by the Hefner company.

A cleaner and new gas engine has been installed in the elevator of the Farmers Elevator Company at Moritz, S. D., which was formerly owned and operated by G. W. Van Dusen & Co.

The elevators of the Fritzon Grain Company at Talmo (Irene p. o.) and Naomi (Lennox p. o.), S. D., have been purchased by the Western Terminal Elevator Company of Sioux City, Iowa.

The elevator, flour house and coal sheds of Geo. Baker at Chancellor, S. D., has been purchased by the Truax Grain Company. Possession was given on December 1. Wm. H. Baker is manager.

J. P. Olson has purchased the business interests of the Gayville Elevator Company at Gayville, S. D., and will operate as the Gayville Grain Company. He was formerly manager of the company. Mr. Olson will make a few improvements and install an electric motor as soon as city electric plant turns on the current. The firm will handle grain and coal.

ILLINOIS

Walker & Eliff are succeeded at Mackinaw, Ill., by Walker, Vienmont & Co.

Chas. Savage is to build a 30,000-bushel square concrete elevator at Arenzville, Ill.

A feed store room is being added to the plant of the Farmers Elevator Company at Taylorville, Ill.

A grain elevator is to be built at Rochester, Ill., by the Berry & Breckenridge Farmers Grain Company.

The Murrayville (Ill.) Farmers Elevator Company has increased its capital stock from \$7,000 to \$14,000.

Half interest in the Pierce-Carey Grain Company at Symerton, Ill., has been purchased by B. J. Baskerville.

The Shellabarger Mill & Elevator Company has practically completed its new 35,000-bushel elevator at Decatur, Ill.

J. W. Probasco and T. J. Hanley are succeeded in the grain and coal business at Barnes, Ill., by Harrison, Ward & Co.

The elevator at Creston, Ill., which burned, the property of the Farmers Co-operative Company, is to be rebuilt next spring.

The elevator of Frank Supple at Bloomington, Ill., has been leased by the Farmers Co-operative Grain Company of Ogden, Ill.

The J. H. Hildebrand grain elevator and feed business at Springfield, Ill., has been purchased by C. A. Miller of Lincoln, Ill.

The elevator of the Sabina Grain & Coal Company of Sabina (Monarch p.o.), Ill., has been improved and put into operation.

The capital stock of the Tabor Co-operative Grain Company, operating at Tabor, Ill., has been increased from \$20,000 to \$30,000.

The work will be pushed forward rapidly this winter on the completion of the 4,000,000-bushel storage tanks at the Chicago & Northwestern Railroad Elevator at South Chicago, Ill., which will raise the capacity of this house to 10,000,000 bushels. The work, as at the old house, is being done by Witherspoon-Englar Company on plans by

John S. Metcalf Company. It is expected to be completed by March of next year. The Armour Grain Company will operate the entire plant.

Henry Barrett's grain elevator at Owaneco, Ill., has been sold to the recently organized Farmers Grain Company. Consideration was \$13,500.

Capitalized at \$250,000, the Illinois Farmers Co-operative Association has been organized at Elyar, Ill. The company will conduct a grain and feed business.

The elevator of the Butler Grain Company of Butler, Ill., has been completed. The plant is of reinforced concrete and has a capacity of 40,000 bushels.

The Seaton Farmers Grain Company of Seaton, Ill., has equipped its plant with a new set of scales. The handling capacity of the scales is 10 tons.

A concrete elevator of 40,000 bushels' capacity has been built at Pleasant Plains, Ill., for the Farmers Elevator Company, replacing the one burned last spring.

The grain elevator at Emden, Ill., has been sold by Chas. E. Bowles back to its former owner, John H. Hildebrands. Mr. Bowles gets in exchange an 80-acre farm.

The Meadows Grain & Coal Company has remodeled its North Elevator at Chenoa, Ill., which has been used for storing principally oats, into a corn elevator.

Elvis Weathers Grain Company has succeeded the Newman Grain Company at Newman, Ill. The business will be conducted under the same management as in the past.

A modern brick office 40x41 feet has been built at Andres, (Peotone p.o.), Ill., for the Andres & Wilton Farmers Grain & Supply Company.

Stevens & Freeman's elevator at Garber, Ill., has been purchased by the Farmers Elevator Company. Will operate it as the Bailey-Moore Grain Company with headquarters at Elwin.

Capitalized at \$50,000, the Farmers Mill, Elevator & Supply Company has been incorporated at Eldorado, Ill. A. J. Elson, L. Farmer and T. W. Overton are named as the organizers.

The new warehouse of the Joliet Grain Company at Joliet, Ill., has been completed. It is built on a concrete foundation with concrete floors and is covered with galvanized iron siding.

The Alwyard-Zeigler Grain Company at Stonington, Ill., has sold out to Otto and Chas. Young of Blue Mound who will operate under the name of the Young Bros. Grain Company. Consideration was \$20,000.

The capacity of the elevator of the Farmers Elevator Company at Verona, Ill., has been doubled. Two new dumps, two legs and new scale have been installed. Chas. N. Bonges is manager of this grain elevator.

A modern transfer elevator is to be built at Decatur, Ill., by Victor Dewein and T. E. Hamman. The house will be equipped with modern machinery including rolls for cracking corn and an oats bleacher.

The elevator and lumber yard of Shearer & Shearer and M. R. Meents & Son at Cullom, Ill., has been purchased by the Cullom Co-operative Grain Company. The consideration was \$25,000. Possession was given on the first of December.

The West Point Farmers Co-operative Elevator Company has been incorporated at West Point, Ill., by Fred Haas, F. C. Mensendick and V. A. Tripp. The company is capitalized at \$20,000. The company has purchased the Major Elevator there.

The contract has been let by the McFadden Grain Company of Chandlerville, Ill., for enlarging its elevator and for the installation of new equipment including a new rope drive, two legs, dump, conveyors and a 15,000-bushel automatic scale.

The Twist Bros' elevator at Bulpitt (Taylorville p.o.), Ill., has been purchased by the Farmers Grain Company. The farmers are building an addition to be used as feed room. Ed. J. Achenbach is president; Andrew Gazell, vice-president; Bruce Shaw, secretary.

Incorporation papers have been filed by Frank Brown, Herman Hahn, Fred Zollars, D. Hoblit, Frank Wilmert, Maurice Raymond, Harry Everman, W. Mayfield and Florence Foley as the Lawndale Co-operative Grain Company of Lawndale, Ill. The company is capitalized at \$50,000.

The Corn Belt Elevator Company of Peoria, Ill., which has purchased a site there for a new elevator, has advised us that because of unsettled conditions nothing further will be done with plans for the new building until some time later, when the situation warrants it. Louis Mueller is president of the firm.

The Barnes Elevator Company of Barnes, Ill., is building a 50,000-bushel elevator consisting of eight 12-foot tanks with smaller bins in center. Also a tile stucco office with cover over scales. The plant is to be operated by a 25-horsepower

Fairbanks-Morse Type "Y" Engine, and will also be equipped with a distributor and automatic scales. The plant will be ready by January 1.

A new elevator is being built at Champaign, Ill., by Burton, Gardner & Davis replacing the one destroyed. The new building is to be strictly modern and will have capacity of about 50,000 bushels.

Additional bins numbering 33 are to be built to the elevator of the J. J. Badenoch Company of Chicago, Ill., increasing its grain storage by 375,000 bushels making the total capacity 700,000 bushels. The new tanks are to be of reinforced concrete, and steel. They will be completed on or before January 1.

B. E. Morgan & Co. are remodeling their establishment at Rossville, Ill. They are building a new addition, 36x48x54 feet, to the square with a cupola 22x48x33 feet to the eaves. It has been equipped with two legs, two dumps, cleaner, automatic scale, sheller and motor. The old elevator is to be used for ear corn and oats.

MISSOURI, KANSAS AND NEBRASKA

A new elevator and warehouse is being erected at Nelson, Mo.

The Bennett Grain Company has completed its elevator at Dix, Neb.

The Farmers Elevator Company has built a new elevator at Danville, Kan.

The Herndon Equity Exchange of Herndon, Kan., has built a new elevator there.

Construction work has been completed to the Joe Milburn Elevator at Glandsted, Mo.

The Farmers Union of Loup City, Neb., is contemplating the erection of a grain elevator.

A grain elevator is to be erected at Osage City, Mo., for the Hays Wood Products Company.

A modern elevator is to be erected at Lindsay, Neb., for the Farmers Elevator Association.

Capitalized at \$175,000, the York Milling & Grain Company has been incorporated at York, Neb.

The grain elevator at Sylvia, Kan., is being moved to a new location just north of the depot.

A new 10,000-bushel elevator has been built at Lenexa, Kan., for the Farmers Elevator Company.

A new elevator has been completed at Bushnell, Neb., for the Lexington Mills & Elevator Company.

The elevator at Center, Mo., is to be conducted in the future under the management of H. J. Smith.

The Land Milling Company of Neodesha, Kan., is to build a new elevator replacing the one which burned.

W. H. Douglas' interest in the grain and feed business at Antioch, Neb., has been purchased by H. P. Holt.

A new flour mill and elevator is to be erected at Hutchinson, Kan., for the William Kelly Milling Company.

The Farmers Elevator & Supply Company has been formed at Moscow Mills, Mo. Its capital stock is \$20,000.

General repairs have been made to the elevator of the Jewell Co-operative Association at Jewell, Kan.

The Derby Grain Company's elevator at Sabetha, Kan., has been purchased by the Farmers Co-operative Association.

The Gibbon Roller Mills of Gibbon, Neb., have completed a new elevator. Sprout-Waldron machinery is to be installed.

The Duff Grain Company of Washington, Kan., has employed Elmer Williamson as manager of its elevator. He succeeds Chas. Tyrell.

The contract has been let by the Farmers Union for a new elevator at Randolph, Kan., which will have a capacity of 12,000 bushels.

The elevator of the Farmers Co-operative Association at Edgar, Neb., is being improved. More remodeling is to be done next spring.

The Higginsville Milling Company of Higginsville, Mo., is building a 100,000-bushel elevator and headhouse and five tanks, 19x100 feet.

Additional storage of 1,000,000 bushels' capacity is to be built to the elevator of the Wichita Terminal Elevator Company at Wichita, Kan.

A new 10-ton Fairbanks Type Registering Beam Scale and an electric motor have been installed in the elevator of the Dinsdale Bros. at Palmer, Neb.

An addition is being built to the mill storage of the Monett Mill & Elevator Company of Springfield, Mo., increasing the capacity from 25,000 to 30,000 bushels.

Jos. M. Vick, F. Fricks and Richard Oliver have filed incorporation papers as the Farmers Co-operative Grain & Lumber Company of Humphrey, Neb. Its capital stock is \$100,000.

A new boot has been installed in the elevator of the Dawson Grain Company at Brainard, Neb.; other improvements including the installation of

new concrete dumps are being made. All the wooden floors in the bins are being replaced with ones of concrete.

William Sheehan and Edw. Kelley have purchased the elevator of Dan Bourke at Manley, Neb. Possession has been given the new owners.

A new 720,000-bushel elevator is to be constructed at Larned, Kan., this spring by the Associated Mill & Elevator Company of Kansas City, Mo.

A 10,000-bushel grain elevator with tile headhouse and two storage tanks 14x40 feet has been built at Braymer, Mo., for the Farmers Co-operative Association.

A large cleaner of 500 bushels' capacity per hour is to be installed in the White Cloud Grain Company's elevator at White Cloud, Kan. The boot and leg carrying the shell corn is also being enlarged.

J. B. M. Wilcox, Otto Bresky, H. H. Unkefer and H. A. Richards have incorporated the Seaboard Storage Company at Kansas City, Mo., capitalized

at \$10,000. The company will conduct a private and public warehouse.

The Ashland Mill & Grain Company's plant at Ashland, Neb., owned by Alvin Adam, has been purchased by the Farmers Union Co-operative Association. Consideration, \$17,000. Possession was given on the first of December.

The Midland Flour Milling Company of Kansas City, Mo., has let the contract for a new 300,000-bushel elevator. The new addition will be of concrete. In addition a warehouse, two stories high and 42x150 feet is to be erected.

Elwood Clark & Co., are contemplating the building of a 10,000-bushel grain elevator at Rayville, Mo. The plant will be ready to handle the 1920 crop of wheat. A switch is to be run from the Santa Fe tracks to the elevator.

Improvements are to be made to the Farmers Grain & Supply Company's Esbon, Kan., elevator. A concrete foundation is being put under the plant; concrete approach being built to the elevator and additional room for coal storage being provided.

chief of the Grain Sampling & Seed Inspection Department of the Chicago Board of Trade, succeeding Robert Kettles in this position in 1916. He started in the grain business early in 1878 and worked his way up to the position of chief of the sampling division.

SCHOENING.—On November 5, A. F. Schoening died. He was at the head of the Davenport (Iowa) Flour & Feed Company and had been in the feed and flour business for 16 years.

SCOTT.—After an extended illness, Chas. B. Scott died at his home in Chicago, Ill., recently, aged 61 years. Mr. Scott was a member of the Chicago Board of Trade for 30 years. His widow and three sons survive him.

SMITH.—Following an operation William A. Smith, aged 75, died at a Chicago hospital recently. Mr. Smith was manager of the Buffalo Rock Elevator near Ottawa, Ill. Mr. Smith was born at Ottawa in 1844 and had resided there all his life.

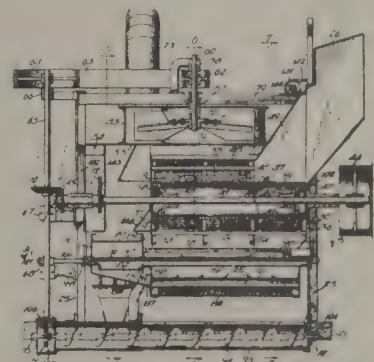
ZORN.—Sebastian S. Zorn, head of the grain house of S. Zorn & Co., Louisville, Ky., and one of the leading business men of that city, died on December 15. Heart trouble, dating back some five years, was the cause of his death. Mr. Zorn started in the grain business when 15 years of age with the milling firm of George W. Smith & Son, later becoming a member of that firm. He organized the firm of S. Zorn & Co. in 1879. Mr. Zorn was one of the leading business men of Louisville, being president of the Louisville Water Company, and it was largely through his efforts that the latter organization proved successful. He was also instrumental in revising the Kentucky fire insurance laws in 1912. He is survived by a son, Garrett S. Zorn and a daughter, Mrs. John J. Moren.

GRAIN TRADE PATENTS

Bearing Date of November 18, 1919

Corn sheller.—John H. Gilman and Albert E. Gilman, Ottawa, Ill., assignors to King & Hamilton Company, Ottawa, Ill., a corporation of Illinois. Filed March 11, 1916. No. 1,322,303. See cut.

Claim: In a sheller, the combination with a shelling concave of a shelling cylinder mounted to rotate therein, a casing surrounding the concave and open at the bottom beneath it, a suction-fan casing above the first-mentioned casing, a fan in said casing, a

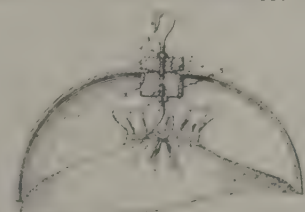


third casing surrounding the first and also open at the bottom, and forming an air passage from the bottom of the first casing to the receiving opening in the fan casing, and means to rotate the cylinder and fan.

Dust preventer.—Wui Kong Un, Hongkong, China. Filed November 9, 1918. No. 1,322,375.

Shield for grain sacks.—Hilary J. Greenwell, Belmont, Ky. Filed February 21, 1919. No. 1,322,167. See cut.

Claim: In a shield for a sack of grain, the combination with a semi-globular canopy having an opening concentric with the lower marginal edge of the canopy, of a body comprising a pair of cylindrical sections, the adjacent faces of which have reduced portions fitting into said opening less than one-half the thickness of the wall of the canopy, whereby the



adjacent faces of the reduced portions are separated, said reduced portions having adjoining shoulders forming parts of both sections, and adapted to engage the upper and lower faces of the wall of the canopy at a point surrounding said opening, whereby the canopy may be clamped between the sections, a hanger screw passing through the two sections for drawing them together, and a hook screw detachably connected to the lower section.

C. N. Duncan is now manager of the mail department of the O. P. Jackson Seed Company, Inc., Houston, Texas. He was formerly with the Texas Seed Company of Dallas, Texas.

FIRES—CASUALTIES

Lapeer, Mich.—Fire destroyed the elevator owned by the Lapeer Grain Company.

Lime Ridge, Que.—Andrew Barter, a grain dealer of Marleton, Que., suffered fire loss at his branch at Lime Ridge recently.

Pensacola, Ala.—The Welles-Kahn Company's warehouse burned. About 100 tons of timothy and alfalfa hay and some grain was also destroyed by the flames.

Lancaster, Pa.—W. Ralph Sensening's grain warehouse burned. A spark from a passing locomotive was the cause of the fire. The loss amounted to \$7,000.

Hays, Kan.—The oil tank in the Farmers Elevator Company's elevator exploded causing a fire which destroyed the entire elevator. The company will rebuild at once.

Trenton, Mo.—The store of the Marlin Grain Company was destroyed by fire. Loss is estimated at from \$20,000 to \$25,000. The loss was partly covered by insurance. The origin of the fire is unknown.

Creston, Iowa.—The Union County Farmers Co-operative Elevator Company's house burned together with its contents. Insurance of \$9,000 was carried on the grain and \$3,000 on the building with a small amount on fixtures.

Chattanooga, Tenn.—The Farmers Equity Elevator was struck by lightning causing damages

amounting to \$2,000. Though the elevator had been in operation for several weeks, it had not been accepted from the contractor, who sustains the loss. There was no insurance on the building.

Ashville, Ohio.—Fire totally destroyed the elevator of The Scioto Grain & Supply Company together with a considerable amount of grain. The cause of the fire has not been determined. The loss is estimated at between \$35,000 and \$40,000, covered by insurance of \$17,000 on grain and \$18,420 on the building. The warehouse and office did not burn.

Haviland, Ohio.—Together with 40,000 bushels of oats, the elevator of the Haviland Elevator Company was destroyed, causing a total loss of \$60,000. The loss on the building is said to be fully covered by insurance. The loss on grain, estimated at \$30,000, is unprotected. Defective wiring in the motors is said to have caused the fire. Chas. Brown, manager of the plant, discovered the flames.

Knoxville, Iowa.—On November 8, fire destroyed two old frame buildings used by W. J. Line & Son, grain and coal and lumber dealers. The loss amounted to \$4,500. In the buildings were stored 1,000 bushels oats, 400 bushels each of wheat and shelled corn and 15 tons hay and a new Cadillac truck and two Fords. The elevator, office, and two coal warehouses were not burned. Insurance amounting to \$1,200 was collected. The buildings are to be rebuilt.

OBITUARY

BAGLEY.—Ralph C. Bagley died on November 19 at his home in Minneapolis, Minn., following an operation. Mr. Bagley was president of the George C. Bagley Elevator Company and vice-president of the Atlantic Elevator Company and the Kellogg Commission Company, and the Royal Elevator Company of Minneapolis. Mr. Bagley is survived by his widow and three children and his mother.

BARBER.—On November 23, Chas. A. Barber died at New York, N. Y. Mr. Barber was secretary-treasurer of the Grain Growers Export Company, Ltd., of Winnipeg, Man., Canada.

BARTHOLOW.—Thos. J. Bartholow died at Atchison, Kan. Mr. Bartholow was a member of the Chicago Board of Trade and had for a number of years been in the grain business at Atchison.

BERNEK.—E. Bernek died on November 26 at Chicago, Ill. Mr. Bernek had been with Babcock, Rushton & Co., for some time and was well known in grain and stock circles in Chicago for many years.

BOWKER.—Chas. W. Bowker died recently at Worcester, Mass. He was president of the C. W. Bowker Company, grain dealers, and had been in business at Worcester for 38 years.

BUSH.—Geo. Bush, an employe in Schrieber Flour & Cereal Company's elevator at Kansas City, Mo., was smothered to death in a bin of bran. The bin became choked and in trying to relieve the choke he fell into the bin and died before reached by his would-be rescuers.

FREEMAN.—Winsor P. Freeman died suddenly on November 17 at his home in Chicago, Ill. Mr.

Freeman, who was 83 years old, had been in poor health for a number of years but the end was not expected so soon. He was associated with H. W. Rogers & Bro., grain commission men, and had been a member of the Chicago Board of Trade for 40 years. He is survived by three children, J. C., Mrs. Lillian Duryee and Ida Belle Freeman.

HOBERTSON.—Edw. Hobertson died from a double fracture of the skull. He was employed by the Stafford Grain Company, Hope, Ind.

KAM.—On November 17, John Kam died at Buffalo, N. Y. He was 48 years old at the time of his death. He was formerly head of the Kam Maltng Company which sold out to the Black Rock Milling Company within the last two years and was well known to the maltng trade.

MICHEL.—Jacob Michel, Jr., secretary and treasurer of the Merchants' Warehouse Company and for many years a member of the Commercial Exchange and Philadelphia Bourse, died at his home in Philadelphia on November 17. Mr. Michel was formerly a member of the flour firm of Jacob Michel & Sons but left the firm several years ago to become secretary of the Merchants company. He was later made treasurer of the company and acted as secretary-treasurer at the time of his death.

PELTUS.—George Peltus was smothered to death in a bin of wheat at the elevator of the Farmers Elevator at Beckemeyer, Ill. Ten days had elapsed before his body was discovered.

ULRICH.—Henry Ulrich died on November 12, after an illness of several months. Mr. Ulrich was 61 years old at the time of his demise. He was

RECEIPTS AND SHIPMENTS

Following are the receipts and shipments of grain, etc., at the leading terminal markets in the United States for the month of November:

BALTIMORE—Reported by Jas. B. Hessong, secretary of the Chamber of Commerce:

| Receipts | | Shipments | |
|---------------|-----------|-----------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 1,553,424 | 1,267,545 | 3,129,573 |
| Corn, bus.. | 140,333 | 242,907 | 1,378,383 |
| Oats, bus.. | 113,931 | 507,968 | 67,798 |
| Barley, bus.. | 4,291 | 508,509 | 46,062 |
| Rye, bus.. | 95,599 | 681,730 | 31,277 |
| Hay, tons.. | 2,450 | 5,702 | 613 |
| Flour, bbls.. | 260,427 | 394,882 | 65,463 |

CHICAGO—Reported by John R. Mauff, secretary of the Board of Trade:

| Receipts | | Shipments | |
|-------------------------|-----------|------------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 3,342,000 | 5,629,000 | 3,939,000 |
| Corn, bus.. | 4,851,000 | 6,139,000 | 1,996,000 |
| Oats, bus.. | 5,515,000 | 10,957,000 | 6,761,000 |
| Barley, bus.. | 980,000 | 1,876,000 | 324,000 |
| Rye, bus.. | 270,000 | 730,000 | 308,000 |
| Timothy Seed, lbs.. | 2,582,000 | 3,242,000 | 1,964,000 |
| Clover seed, lbs.. | 1,941,000 | 1,337,000 | 952,000 |
| Other Grass seed, lbs.. | 1,770,000 | 2,423,000 | 1,672,000 |
| Flax Seed, bus.. | 50,000 | 66,000 | 2,257,000 |
| Broom Corn, lbs.. | 2,409,000 | 2,814,000 | 1,656,000 |
| Hay, tons.. | 16,705 | 24,711 | 986,000 |
| Flour, bbls.. | 1,167,000 | 616,000 | 797,000 |

CINCINNATI—Reported by D. J. Schuh, executive secretary of the Cincinnati Grain & Hay Exchange:

| Receipts | | Shipments | |
|-----------------|---------|-----------|---------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 368,550 | 135,450 | 311,750 |
| Corn, bus.. | 234,300 | 211,200 | 115,500 |
| Oats, bus.. | 193,600 | 432,000 | 76,800 |
| Rye, bus.. | 8,800 | 52,800 | ..... |
| Bar Corn, bus.. | 69,300 | 9,800 | ..... |
| Hay, tons.. | 6,435 | 9,405 | ..... |
| Feed, bus.. | 2,430 | 2,010 | ..... |

*Figures here do not include shipments from track.

CLEVELAND—Reported by F. H. Baer, traffic commissioner of the Chamber of Commerce:

| Receipts | | Shipments | |
|-----------------|---------|-----------|--------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 35,000 | 102,000 | ..... |
| Lake R. R. | 144,502 | 1,160,507 | 19,733 |
| Corn, bus.. | 124,230 | 2,024,345 | 44,028 |
| Oats, bus.. | 266,943 | 3,182,835 | 18,069 |
| Barley, bus.. | 3,764 | ..... | 4,106 |
| Rye, bus.. | 17,706 | 5,024 | 5,046 |
| Hay, tons.. | 3,301 | 2,457,209 | 139 |
| Flour, bbls.. | 99,870 | 86,856 | 23,150 |

DULUTH—Reported by Chas. F. MacDonald, secretary of the Board of Trade:

| Receipts | | Shipments | |
|------------------|-----------|------------|------------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 2,842,561 | 15,598,768 | 2,751,045 |
| Corn, bus.. | ..... | 5,930 | 24,854,840 |
| Oats, bus.. | 33,872 | 560,551 | 8,186 |
| Barley, bus.. | 177,894 | 1,999,313 | 685,375 |
| Rye, bus.. | 922,158 | 3,374,681 | 2,288,022 |
| Flax seed, bus.. | 80,708 | 1,385,479 | 155,073 |
| Flour, bbls.. | 139,865 | 125,350 | 1,251,555 |
| Prod. .... | ..... | ..... | 1,166,350 |

INDIANAPOLIS—Reported by Wm. H. Howard, secretary of the Board of Trade:

| Receipts | | Shipments | |
|--------------|-----------|-----------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 300,000 | 288,750 | 121,750 |
| Corn, bus.. | 1,675,000 | 1,298,750 | 1,182,500 |
| Oats, bus.. | 712,000 | 1,481,400 | 799,200 |
| Rye, bus.. | 48,750 | 143,750 | 47,500 |
| Hay, cars.. | 100 | 138 | 88,750 |

KANSAS CITY—Reported by E. D. Bigelow, secretary of the Board of Trade:

| Receipts | | Shipments | |
|--------------------|-----------|-----------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 8,714,250 | 2,492,100 | 4,781,700 |
| Corn, bus.. | 615,000 | 875,000 | 217,500 |
| Oats, bus.. | 671,500 | 751,400 | 493,500 |
| Barley, bus.. | 145,500 | 321,000 | 85,800 |
| Rye, bus.. | 33,000 | 33,000 | 39,600 |
| Kaffir Corn, bus.. | ..... | ..... | ..... |
| Brans, tons.. | 22,000 | 50,600 | 13,000 |
| Hay, tons.. | 5,900 | ..... | 12,780 |
| Flour, bbls.. | 96,525 | ..... | 352,950 |

MILWAUKEE—Reported by H. A. Plumb, secretary of the Chamber of Commerce:

| Receipts | | Shipments | |
|---------------------|-----------|-----------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 430,140 | 1,544,859 | 253,535 |
| Corn, bus.. | 689,440 | 217,080 | 183,170 |
| Oats, bus.. | 2,484,040 | 3,272,600 | 1,842,036 |
| Barley, bus.. | 838,330 | 1,118,830 | 482,260 |
| Rye, bus.. | 256,500 | 360,925 | 74,900 |
| Timothy Seed, lbs.. | 63,000 | 163,845 | 185,936 |
| Clover Seed, lbs.. | 833,220 | 345,833 | 501,425 |
| Flax seed, bus.. | 33,000 | 36,000 | 1,320 |
| Feed, tons.. | 7,410 | 2,047 | 24,355 |
| Hay, tons.. | 1,296 | 1,322 | 211 |
| Flour, bbls.. | 77,227 | 61,340 | 105,045 |

MINNEAPOLIS—Reported by J. P. Larawa, statistician of the Chamber of Commerce:

| Receipts | | Shipments | |
|------------------|------------|-----------|-------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 12,124,730 | 3,088,840 | ..... |
| Corn, bus.. | 710,150 | 297,380 | ..... |
| Oats, bus.. | 1,391,970 | 1,366,320 | ..... |
| Barley, bus.. | 1,237,790 | 1,140,010 | ..... |
| Rye, bus.. | 591,240 | 178,740 | ..... |
| Flax Seed, bus.. | 568,410 | 45,880 | ..... |
| Hay, tons.. | 1,568 | 400 | ..... |
| Flour, bbls.. | 93,405 | 2,171,646 | ..... |

ST. LOUIS—Reported by Eugene Smith, secretary of the Merchants Exchange:

| Receipts | | Shipments | |
|---------------|-----------|-----------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 3,389,478 | 1,968,893 | 3,165,780 |
| Corn, bus.. | 1,335,267 | 1,957,331 | 676,470 |
| Oats, bus.. | 2,898,000 | 2,282,060 | 2,026,070 |
| Barley, bus.. | 64,000 | 123,200 | 14,980 |
| Rye, bus.. | 18,725 | 14,584 | 15,990 |
| Hay, tons.. | 15,680 | 15,467 | 4,800 |
| Flour, bbls.. | 459,890 | 221,680 | 573,920 |

NEW YORK CITY—Reported by H. Heinzer, statistician of the Produce Exchange:

| Receipts | | Shipments | |
|-----------------------|-----------|-----------|-------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 1,270,800 | 2,813,711 | ..... |
| Corn, bus.. | 9,800 | 42,995 | ..... |
| Oats, bus.. | 2,440,000 | 1,414,363 | ..... |
| Barley, bus.. | 520,675 | 272,292 | ..... |
| Rye, bus.. | 1,174,100 | 491,673 | ..... |
| Timothy Seed, bags .. | 306 | 170 | ..... |
| Clover Seed, bags .. | 306 | 658 | ..... |
| Hay, bales .. | ..... | 2,342 | ..... |
| Flour, bbls.. | 337,126 | 272,294 | ..... |

PEORIA—Reported by John R. Lofgren, secretary of the Board of Trade:

| Receipts | | Shipments | |
|-------------------|-----------|-----------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 120,000 | 924,000 | 105,600 |
| Corn, bus.. | 2,272,400 | 2,981,950 | 1,978,850 |
| Oats, bus.. | 925,300 | 840,350 | 1,287,100 |
| Barley, bus.. | 54,300 | 60,200 | 51,800 |
| Rye, bus.. | 9,600 | 48,550 | 7,200 |
| Mill feed, tons | 6,640 | 6,180 | 11,540 |
| Seeds, lbs.. | 60,000 | 60,000 | 24,000 |
| Broom Corn, lbs.. | ..... | 30,000 | 60,000 |
| Hay, tons.. | 2,050 | 510 | 590 |
| Flour, bbls.. | 330,900 | 290,800 | 308,200 |

TOLEDO—Reported by Archibald Gassaway, secretary of the Produce Exchange:

| Receipts | | Shipments | |
|-----------------------|---------|-----------|---------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 469,000 | 623,552 | 105,315 |
| Corn, bus.. | 166,250 | 102,500 | 46,431 |
| Oats, bus.. | 198,800 | 836,350 | 102,300 |
| Barley, bus.. | 4,800 | 10,200 | 541,695 |
| Rye, bus.. | 159,600 | 64,400 | 17,700 |
| Timothy Seed, bags .. | 10,181 | 11,297 | 1,060 |
| Clover Seed, bags .. | 6,408 | 6,476 | 2,388 |
| Alsike Seed, bags .. | 1,348 | 1,041 | 587 |

HAY, STRAW AND FEED

NEW CALIFORNIA HAY BILL

A bill providing for the sale of baled hay by net weight and that bales broken at point of destination shall be included in the weight forming the basis of settlement has become a law in the State of California. It is known as the Hay Bill. The bill also requires the hay dealer to base his charge upon the true record of weight and will prohibit the old practice of adding 15 to 20 pounds to each bale and recording such weights as "stick or tag weights." Balers are further forbidden to sophisticate bales by the addition of any foreign matter in the hay.

GROWING ALFALFA IN THE SOUTH

The merits of alfalfa have never been recognized in the South although that section of the country has been raising it for a number of years. Alfalfa is ready to be used as feed at the season when other plants have not yet started or are just beginning to take on a good growth. Burr clover, crimson clover and hairy vetch, often called the winter legumes, are all inferior to alfalfa in the very early spring; they, like the small grains which have been planted in rich soil in the early fall, do well in late spring, but do not grow up rapidly in early spring.

Alfalfa can be depended upon to fill in at the time when there is a shortage of hay in the spring with two or three cuttings. If the Southern farmer would but realize the importance and the general usefulness of alfalfa not a farm in the South but would have from one to five acres planted to this legume.

THE NEW ALABAMA FEED STANDARDS

The new Alabama feed standards, which went into effect in November, have resulted in a storm of criticism from feed manufacturers and shippers in other states who have been doing business in Indiana. At the recent fall meeting of the Ohio Millers State Association, Secretary Tanner characterized the new requirements as highly objectionable and advised the millers of that state against attempting to do business with Alabama so long as the present standards are in force.

The standards are as follows:

| | Water | Asfr | Crude protein | Fiber | Carbohydrates | N-free extract | Fat | No. of analyses |
|--------------------------------|-------|------|---------------|-------|---------------|----------------|------|-----------------|
| Flour wheat middlings | 10.7 | 3.7 | 17.8 | 4.7 | 58.1 | 5.0 | 470 | |
| Stan. wheat middlings (shorts) | 10.5 | 4.4 | 17.4 | 6.0 | 56.8 | 4.9 | 4641 | |
| Wheat bran, all analyses | 10.1 | 6.3 | 16.0 | 9.5 | 53.7 | 4.4 | 7742 | |
| Wheat bran, winter | 10.6 | 6.3 | 15.7 | 8.3 | 54.2 | 4.4 | 138 | |
| Wheat bran, spring | 10.4 | 6.3 | 15.7 | 10.2 | 52.6 | 4.8 | 218 | |
| Wheat feed (shorts and bran) | 10.1 | 5.2 | 16.8 | 7.6 | 55.7 | 4.6 | 1601 | |
| Wheat screenings | 10.2 | 5.3 | 13.3 | 7.4 | 61.1 | 4.1 | 66 | |

Many millers, in other states as well as Ohio,

OMAHA—Reported by F. P. Manchester, secretary of the Grain Exchange:

| Receipts | | Shipments | |
|---------------|-----------|-----------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 2,127,600 | 999,600 | 1,921,200 |
| Corn, bus.. | 1,351,000 | 1,096,200 | 1,008,000 |
| Oats, bus.. | 932,000 | 2,048,000 | 848,000 |
| Barley, bus.. | 91,800 | 282,600 | 90,000 |
| Rye, bus.. | 102,300 | 161,700 | 55,000 |

NEW ORLEANS—Reported by Geo. S. Colby, chief grain inspector and weighmaster of the Board of Trade, Ltd.:

| Receipts | | Shipments | |
|---------------|-------|-----------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | | 739,125 | 1,142,807 |
| Corn, bus.. | | 50,400 | ..... |
| Oats, bus.. | | 63,610 | 198,000 |
| Barley, bus.. | | 250,273 | ..... |

PHILADELPHIA—Reported by Samuel S. Daniels, statistician of the Commercial Exchange:

| Receipts | | Shipments | |
|---------------|-----------|-----------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 2,382,098 | 1,902,575 | 3,183,775 |
| Corn, bus.. | 50,606 | 53,707 | ..... |
| Oats, bus.. | 844,375 | 921,975 | 433,404 |
| Barley, bus.. | 4,761 | 3,750 | ..... |
| Rye, bus.. | 115,595 | 226,516 | 17,465 |
| Flour, bbls.. | 242,602 | 171,648 | 54,263 |

PORTLAND, MAINE—Reported by G. F. Feeney, traffic manager of the Chamber of Commerce:

| Receipts | | Shipments | |
|---------------|-----------|-----------|-----------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, bus.. | 1,850,105 | 1,441,058 | 1,743,422 |
| Oats, bus.. | 51,294 | 96,338 | 1,935,162 |
| Barley, bus.. | 445,475 | ..... | 383,000 |
| Rye, bus.. | 133,866 | ..... | ..... |

SAN FRANCISCO—Reported by Wm. B. Downes, statistician of the Chamber of Commerce:

| Receipts | | Shipments | |
|----------------|---------|-----------|-------|
| 1919 | 1918 | 1919 | 1918 |
| Wheat, ctls.. | 86,359 | ..... | ..... |
| Corn, ctls.. | 21,525 | ..... | ..... |
| Oats, ctls.. | 41,971 | ..... | ..... |
| Barley, ctls.. | 142,874 | ..... | ..... |
| Hay, tons.. | 6,886 | ..... | ..... |
| Flour, bbls.. | 788,302 | ..... | ..... |

claim that they are wholly unable to meet the above standards, and must discontinue the sale of feed in Alabama, at least until the requirements are put on a different basis.

NEW YORK SEED MARKET HIGHER

BY C. K. TRAFTON

During the month under review general conditions in the hay trade have remained just about as they were in October, and in September also, for that matter. In short, virtually all concerned have displayed practically the same amount of dissatisfaction as they have since last summer. During the first half of the month, if not for fully three weeks, trading was extremely dull. Under ordinary conditions this might have justified expectations of lower prices, but in this instance the continued paucity of supplies largely, if not wholly, counterbalanced the lack of animation. It is true, there was a small decline momentarily at the beginning of the month, but the weakness soon disappeared, all of the loss being speedily recovered. As a matter of fact, the receipts were generally too small to cause depression. Even the most obtuse dealer was able to perceive that the outlook was by no means bright for ample supplies as it was plainly evident that the supply of cars was inadequate, and on top of this the supply of coal also became insignificant. This latter had a great deal to do with the inadequate arrivals late in the month as it led the Administration to place embargoes on shipments to this market. As usual, of course, the buying element was greatly disappointed as they anticipated larger receipts and lower prices, and they still insist that ample supplies obtain at interior points. In short, they believe, or pretend to believe, that farmers have large stocks, and also country shippers, which will be shipped to this and other markets as soon as more freight cars can be obtained. It is certainly fair to presume that there is a moderately large supply to come forward, but nevertheless, conservative and well-informed dealers do not expect any heavy movement in the near future. For one thing, they realize that farmers are strong financially and therefore in no hurry to ship their hay, many of them

lessened. This does not necessarily mean that there has been any excessive supply of No. 1. On the contrary, the supply has continued small. It was stated by way of explanation that the higher price level for No. 3, as well as No. 2, was largely brought about by the fact that the demand was almost wholly for hay of this description. In other words, nearly all buyers, on finding that No. 2 could not be obtained except in a limited way, decided to take the lower grades more freely.

Late in the month the receipts showed moderate enlargement and with demand somewhat quieter the undertone was a trifle weaker, although no important price changes were noted.

Early in the month the market for straw was dull, flat, and unsettled. Subsequently offerings became lighter and with demand fairly good a slight advance occurred.

THE HORSE IN AMERICA

At the meeting of the Horse Publicity Association, held December 4 at Chicago, President Fred M. Williams addressed the convention as follows:

Friends of the Horse: In greeting you as friends of the horse I take special pleasure in the fact that we are gathered in the great metropolis of the West, whose every arch and pillar is eloquent of the progress which the nation made under the time-honored co-partnership of man and horse.

The vast prairies which stretch out from this throbbing heart of Western industry and trade, aye, every valley and glen, every mountain pass and trail that mark man's Westward march from the Atlantic to the Pacific bear the record of the inspiring service rendered to our civilization by the faithful friend of man in whose interest we have assembled.

The Horse Publicity Association of America advances no new or novel theory. Our cause is that of a friend, tried through the centuries, bearing the burdens of progress and sustaining a faithful co-operation with man in the development of the natural resources of the earth.

While the true lover of the horse has been distressed by the apparent abandonment of the horse in the interest of motor-driven vehicles, no one will deny the value of the automobile as a means of transportation under certain conditions. We are not organized for the purpose of driving the automobile from its legitimate field. The mechanically driven vehicle is here to stay. We make no war upon it. On the contrary we invite the co-operation of thinking men who may be interested in the success of the automobile industry, but whose interest in their country overshadows all selfish considerations.

There is room for the motor and the horse. Both are essential. Neither could be used to the exclusion of the other without irreparable injury to the country. However, we cannot overlook the fact that for at least 20 years the automobile has had a practical monopoly of publicity. The horse has been heard of rarely except in flippant or contemptuous jest. Yet through it all his invaluable service to the world has continued. With patience and fidelity he remains one of the nation's greatest assets—a producer of wealth, an indispensable adjunct of our industrial, agricultural and commercial life.

Not until the great war sent the nations of the earth in search of horses did the people of the United States awaken. Suddenly and with startling emphasis they were reminded that the extinction of the horse would be a national calamity. In every walk of life serious thought was given to the importance of the breeding and protection of the horse. The progressive farmer contemplated his empty stables with misgivings; the great corporations began to study the economic phases of the subject and discovered that in short hauls the economies favored the use of the horse. A wave of that good old-fashioned common sense, which is the salvation of men and nations, swept over the land and we have as the first significant fruit of the awakening, the "Horse Publicity Association of America."

The farmer's interest in this subject is three-fold. First, he is confronted with the fact that certain necessary work upon the land must be performed by team. Second, his short hauls are more economically made by horse than by machine. Third, the horse is the very foundation of the market for a large percentage of the products of the farm.

In considering the great law of supply and demand upon which the producer must depend for his market, it might be well for the farmer to ask himself whether he is drifting. If he turns his back upon the old-fashioned horse for the novelty of the gasoline horse, and if the country at large joins him in the change, where will he find a market for his oats,

hay and other products now consumed by the horse?

Does he know that horses consume 68 per cent of the oats produced in the United States? Is he aware that 45 per cent or nearly one-half of the vast hay crop is fed to the horse? Has he considered the fact that 18 per cent of the nation's barley, 24 per cent of its corn and 25 per cent of its rye must be added to the demand which the horse creates for the products of the farm?

These are figures that should give the farmer pause. Above all other classes the farmer is vitally and fundamentally interested in the use of the horse. Banish the horse and you rob the farmer of a market which has supplied billions of dollars to agriculture and which contributes hundreds of millions annually to the farmers' income. The 25,000,000 horses in the United States constitute a vast army of protection to the farmer against the attempts of manipulators to lower the price of the products of the farm.

Horse Breeding

One of the important objects of this Association is the encouragement of the breeding of horses. Statistics of the Department of Agriculture at Washington show that in the pre-motor days the country bred an average of one colt to every farm yearly. Recent figures reveal an average of one colt to every three farms. No wonder the country is becoming aroused on the subject of breeding! It is the hope of our Association that the farmer will get below the surface of the subject and that the agricultural sections will abandon the suicidal policy which the figures indicate.

If we are to guard against the great national loss that would result from a serious horse shortage, we must act promptly, intelligently, vigorously. Already there is an alarming shortage of heavy draft horses throughout the country, and we are unable to meet the largely increased European demand for American horses. As a result it is freely predicted that the grade of horse now selling for \$200 will, within the next three years, command from \$400 to \$500. Horse breeding cannot longer be neglected without disastrous results. It is our aim to awaken an interest in the subject not only among the farmers and industrial operators whose prosperity is vitally affected, but among the agencies of government as well. This is more than a mere question of local or individual gain—it is a national problem of the first magnitude.

Road Construction and Improvement

Another subject with which the Association must deal is that of public roads. The public roads of the United States have a total of 2,478,552 miles, of which only 299,135 are improved with some form of surfacing. This leaves 2,179,417 miles of unimproved roads in the country. On account of the war new construction was necessarily deferred to a large extent during 1918. During the early part of 1919 44 states and county governments began making provisions for road funds to an extent entirely unknown before. Thus, between November 1 and July 1, State Highway Bonds were voted to the extent of \$314,000,000. The Federal Government has also made provisions for a considerable increase in the amount of funds available under the Federal Road Act.

The Post Office Appropriation Act carried an amendment which provided an additional appropriation of \$209,000,000 for Federal co-operation in the improvement of rural post roads and forest roads. Altogether, there has been provided by the State and Federal Governments, for road construction and improvement, the generous sum of \$525,000,000.

This brings us to a very serious phase of the situation with which we are confronted. During the recent gasoline craze the public roads have been built for automobiles. A smooth, hard, narrow strip of road, admirable as a race course for automobiles, but almost useless for horse-drawn vehicles, is constructed at public expense. Not only are these roads useless for horses, but under certain weather conditions are positively dangerous to horse and man—unless the man be in the automobile.

The plans for future road-building must give just recognition to the horse. This question will be brought to the attention of the proper authorities in every state in the Union. Its importance will be urged upon Congress and the Federal authorities. In this work the Association will need the hearty co-operation of every society, association and individual in sympathy with our aims.

I am confident that we will have this co-operation. The businessman is showing encouraging signs of awakening on questions of public interest. He is beginning to realize that after all, "politics" is business under another name. Taking the time to study the question, he learns that governments are great corporations and that the best government is that to which the best business principles are applied. The Government of the United States has been described as the greatest business corporation in the world. Yet the vast interests controlled or regulated by our Federal and State Governments have too frequently been intrusted to professional politicians. The great man in public life is a source of strength to the nation. We have upon the official rolls of the executive and legislative branches of our Government names which we revere. Many of our public officials are entitled to the hearty support

and unstinted applause of the public. For these we can have but words of praise. But too often our public interests have been subordinated to personal ambition or partisan design. Unless the businessmen of the country take a greater interest in political activities and give to the nation the benefit of their knowledge, experience and efficiency, serious disappointments and stormy days will mark the future.

I speak of this phase of our national situation because at every turn it stands out as a warning and an appeal. Surely the great cause which we have met to discuss should receive the careful attention and patriotic support of the businessmen whose success so largely depends upon the agricultural prosperity of the nation.

As already stated, we make no war upon the automobile. The success of the motor industry is a source of satisfaction to all who take pride in the industrial leadership of America. At the same time we insist that the men upon the farms aid in the cities who have the welfare of the country at heart should give serious thought to the danger of destroying the horse industry. There are fields in which motor-driven machines can never supplant the horse. This is especially true in the all-important line of labor and transportation on the farm. But where are we to obtain horses if the present frenzied devotion to motorized vehicles continues and the use and breeding of horses are abandoned?

If we are to be effective as an association we must prosecute a vigorous campaign. The foundation upon which we stand is firm and deep. Our cause has a place in the heart of every man and woman who appreciates the horse. It is for us to build upon that foundation. The wide popularity of our subject should be a guarantee of success. Every man engaged in heavy transportation has a genuine affection for the draft horse. The farm horse appeals to the millions who have seen him contribute to the prosperity and happiness of the old and young whose wholesome lives "down on the farm" have been the saving grace of our American civilization. For pleasure, the driving horse; for health, the saddle horse; the pony for the children, and the trotter and runner for speed and sporting thrills. Every class and grade of society is interested in the horse. He appeals to all that is best and noblest in our nature. His call is to the open fields and free air, where youth finds nature's exhilaration and breathes the pure tonic, moral and physical, that gives to manhood its strength and to womanhood its glory.

It is no small task that we have undertaken. The field upon which we have entered is as broad as any that may invite the progressive elements of society. It is wider than the nation, for the interests to which the horse is allied are bounded only by the limits of human endeavor. No man can be too important, no position too exalted for the cause. Wherever there is gratitude for faithful service, wherever men and women appreciate the noble attributes of the horse, wherever the economies of agriculture and transportation are understood—aye, wherever may be found the free spirit of thoroughbred Americanism—there will be found men and women willing and anxious to join in this movement for the rehabilitation of the horse and the conservation of the great wealth and power which he represents.

Resting upon the principles which I have outlined, and inspired by the motives to which I have given but slight expression, this Association of earnest citizens will, I am sure, receive prompt recognition from the public, and reap the high rewards of success which the justice of its cause should command.

A feed and flour business has been started at Boonville, N. Y., by John B. Brogan.

The new feed warehouse of E. E. Eddington & Co., at Charleston, Tenn., has been completed.

A new feed and seed store is to be opened at Steelville, Mo., for the Jonas Bros. Feed & Seed Company.

The feed business of the late J. N. Buchman has been purchased by his son, C. E. Buchman of Arcade, N. Y.

Earl C. Dexter of Morrisville, has purchased the feed and flour business of F. G. Ludington at Mexico, N. Y.

Albert Miller & Co. of Chicago, say: "Ship your hay now and benefit by these high prices. We cannot urge you too strongly to ship. Everything in the way of feed is wanted and wanted bad."

The Armour Grain Company of Chicago, Ill., is building a new feed mill in connection with its Minnesota Elevator on Goose Island, Chicago, Ill.

Alfalfa, Prairie Hay and Alfalfa Meal

are being harvested under ideal weather conditions. Prices have struck bottom. Buy and store now. Get our delivered prices.

CARLISLE COMMISSION COMPANY

736 Live Stock Exchange Kansas City, Mo.

A L F A L F A

ALFALFA

We are the Largest Distributors

of ALFALFA in

GREATER NEW YORK

Shippers who have Alfalfa Hay to dispose of, if they will communicate with us we will provide a satisfactory outlet.

ALFALFA

A W. D. Power & Co., 12-15 N.Y. Hay Exchange NEW YORK

A L F A L F A

The plant is expected to be ready for operation by February on all kinds of feeds, principally hog feeds.

The feed and flour business of C. M. McAdam & Son at Hammond, N. Y., has been purchased by E. L. Crandall.

The business of G. B. Brown at Newburyport, Mass., has been purchased by W. G. Horton, feed and flour dealer.

The feed business and buildings owned by Jay Sibley at Prophetstown, Ill., have been purchased by Earl Troppert.

A wholesale and retail feed business is to be conducted at Huntingburg, Ind., by Theo. Franke and Felix Sermersheim.

A steel and concrete warehouse costing \$100,000 is to be built at Memphis, Texas, for the Delta Flour & Feed Company.

A feed and flour business has been established at West Allis, a suburb of Milwaukee, Wis., by Matthew Rock of Wauwatosa.

The capital stock of the Hansen Livestock & Feeding Company of Ogden, Utah, has been increased to \$1,500,000. The company operates a grain elevator and uses the by-products which are

mixed with beet molasses and alfalfa. The company plans to enlarge both ends of the business.

The Eastern Ohio Feed & Supply Company's business at Bellaire, Ohio, has been purchased by G. D. Robinson and Alex Neff.

A partnership to deal in hay has been formed at Mt. Sterling, Ill., by J. L. McPhail and W. T. Hogan. They will operate as McPhail & Hogan.

A feed business has been established at Danville, Ill., by C. B. Wright and Wm. Stratman to be conducted under the name of C. B. Wright & Co.

An addition is to be built to the mill of D. A. Miller of Mountain Home, Ark. He will engage now in the feed and flour business as well as milling.

The Chattanooga Feed Company of Chattanooga, Tenn., is installing a feed mixing equipment in its brick warehouse. Feed capacity will be 200 tons.

H. L. Hutchinson will conduct a wholesale and retail feed and flour business at Tyrone, Pa. He recently resigned his position as salesman in the Quaker Oats Company. With him is interested H. B. Wolfe. They will operate as the Juniata Feed & Flour Company and will handle dairy, stock, poultry and mill feeds and flour.

(Hay, Straw and Feed continued on Page 521)

FIELD SEEDS

GOVERNMENT REPORT ON CLOVER SEED

The Government Crop Report for the month of November issued recently gives the clover seed crop of the country at 967,000 bushels against 1,015,000 bushels for October and 1,102,000 final year ago. Two years ago the crop totaled 1,488,000 bushels. The State of Illinois still leads in the production of this crop with 210,000 bushels; Wisconsin comes next with 156,000—41,000 bushels less than in October. Ohio and Indiana have a trifle more than for October. Michigan has 24,000 less. Other states show small changes.

NEW SEED TRADEMARKS

During the month of November the following new seed trademarks were published in the Official Gazette of the United States Patent Office: "Red Bird" garden, vegetable and field seeds. Lewis Implement & Seed Company, Louisville, Ky.



Ser. No. 121,280.

HEMLOCK

Ser. No. 114,205.

Filed August 5, 1919. Serial No. 121,280. "Hemlock" field and garden seeds. T. H. Cochran Company, Portage, Wis. Filed November 18, 1919. Serial No. 114,205. See cut.

WHEAT SEED CANVASS TO BE MADE

Organizations interested in the promotion of wheat growing in wheat growing section of Minnesota and North and South Dakota have plans for the immediate canvass of the territory to determine the amount of seed wheat necessary for planting the 1920 crop. These organizations will attempt to impress upon the farmers the importance of good seed and will also endeavor to promote uniformity of maturity, yield and growth of wheat throughout the Northwest. The co-operation of agricultural colleges in the district will be asked in testing seed wheat for its germinating and milling qualities. The Southern Minnesota Millers Association is backing the campaign to the fullest extent possible.

NEW YORK SEED MARKET HIGHER

BY C. K. TRAFTON

Compared with the volume of business done in seeds during October, trade during November and early December showed some diminution according to reports from various reliable sources, but when compared with this season in other years the market has made a decidedly good showing. A fair share of the business early in the month represented the clearing up of an accumulation of October business caused by the harbor strike. Of course, the return of the longshoremen to work and the resultant breaking of the tie-up which had made it almost impossible to handle import shipments or to move goods to other markets created

unanimous gratification. In the majority of cases prices show no change of moment, but some of the leading varieties show further advances, and the probable trend of prices in the future is upward in the judgment of some of the best-informed men in the trade who report that inquiry is still active for all clover and grass in spite of the higher levels reached in some cases.

Alfalfa again showed the way upward with gains averaging about 5 or 6 cents for the month. Imported seed has been in decidedly urgent request from virtually all growing sections, but it was necessary to advance bids materially as nearly all of the previous arrivals had been absorbed, while the imports in the month were small, only 2,280 bags. Of this total 1,929 bags came from Buenos Aires on the steamer *Nordfarer*, which is a decidedly unusual if not unprecedented feature. The strength was also traceable in part to the unsatisfactory quality of many of the shipments received, some turning out much inferior to sample. Hence buyers here have entered claims for poor deliveries against certain shippers. Fresh offerings from Italy are small, especially of choice. Importers do not expect any further noteworthy arrivals of really choice seed, although there are offerings at \$70 per 100 kilos, or about 33@35 cents c. i. f. N. Y. Poorer qualities are offered at 31@32 cents and it is thought possible that there may be fairly large quantities of this class still to come forward.

Red clover has been in active demand, especially from the South, and hence the market has been strong, some quoting the best domestic grades as high as \$52, although others state that the range is virtually unchanged at \$47@50 per 100 pounds. The apparent weakness in imported clover, which is generally quoted at 45@49 cents, or roughly 1½ cents lower, is decidedly misleading as it is not traceable to any actual weakness in the situation. In short, it is simply a reflection of the remarkable depression in French exchange, the new low rates for francs making it possible to buy in that country at declines of 3 to 4½ cents. Fair average quality is quoted at 42@43 cents c. i. f. N. Y. and choice at 44@44½ cents, but offerings are meager and come almost wholly from the smaller dealers, practically all of the big Paris shippers still refusing to offer. Italy has made a few small offers on about the same basis as France, but that source seems to be almost exhausted. According to local dealers, the domestic crop of about 967,000 bushels is fully 150,000 bushels short. Arrivals during the month were 12,000 bags and about 2,000 bags were shipped to northern Europe.

Alsike made a further gain of about 2 cents, domestic demand being far in excess of the supply. In some quarters it was claimed that when alsike sold at 51½ cents it was above a parity with red clover, thereby confirming predictions made months ago by the original "Alsike Bulls." The fact that these remarkable prices are not bringing out larger offerings is creating the impression that the crop was smaller than previously assumed. Moreover, export inquiry has improved, one reliable authority estimating the shipments recently at fully 10,000 bags. As the goods must be shipped this month or early in January, it is evident that British buyers became discouraged and decided to wait no longer for sterling exchange to return closer to a normal basis, especially as it had in the meantime fallen to the lowest ever known.

Timothy has remained dull with no new feature

to lift it out of the rut. Still, prices are practically unchanged. Inquiry from abroad has continued decidedly disappointing, shipments being only 170 bags to Germany and 250 to Denmark. It is evident that the phenomenally low rates ruling for German marks has made buyers in that country give up the idea of securing seed here. The present local quotation of 12½@13 cents per pound would be high enough under normal exchange rates, but with marks worth less than 10 per cent of par the cost to German buyers would be more than 10 times what it would be ordinarily. With money so scarce it is not strange that Germans are reluctant to pay equal to \$1.25@1.50 per pound for timothy.

Red top scored another advance of roundly 2 cents, it being virtually impossible to secure good lots at shipping points under 20 cents. The carry-over is steadily dwindling with the remainder strongly held. Moreover, the new crop is short, although of good quality. There has been a quiet demand from northern Europe and some parcels have been shipped.

Crimson clover has been quiet and unchanged. Domestic buyers have been taking imported seed at around 9 cents to cover the requirements of their spring trade. Recent advices from France place the carry-over there at about 40,000 bags, or barely one-quarter to one-third the normal quantity. Hence shippers have been offering sparingly, although bids of 9 cents c. i. f. N. Y. have been accepted in some cases.

Canary seed has presented some interesting features. Owing to crop failures in Turkey and Morocco, British buyers have been forced to seek supplies elsewhere and have been competing strongly against Americans in Argentina. Hence the market there has stiffened appreciably. The cheapest offer heard recently was 7¼ cents c. i. f. N. Y., against 7 cents a month ago. Spot lots here are quoted at about 8¼ cents in a jobbing way. A decidedly novel and interesting item reported by a local dealer was a shipment of Argentine seed from this market to Australia via the Panama Canal. Arrivals from Argentina during the month aggregated about 6,270 bags.

With the Canadian crop of field peas only about one-quarter of normal, a higher market for home-grown peas has developed in Michigan, the lowest price quoted being 5½ cents, freight paid to New York. There is a good spring demand in the local market with prices ranging from 5½ to 6½ cents. It is believed that little will be available for export, excepting at fully 6½ cents N. Y., against about 4.20 cents a year ago. Some of the most astute local dealers regard field peas as a decidedly good investment at such remarkably big discounts under other seeds.

Rapeseed has developed strength with the approach of the seasonal demand, spot lots being quoted at about 12½ cents. For December-January shipments 9.10 cents N. Y. is quoted.

Sunflower seed is quoted at 10½ cents for imported and 11½ cents for domestic. The Orient is not offering anything and only small additional shipments are expected from Argentina. Arrivals from that country this month were about 1,525 bags.

Fancy Kentucky blue grass has advanced about a half-cent, while English rye grass is about one cent lower. Other varieties are practically unchanged. Imports during the month were about 1,450 bags of orchard grass and 3,050 bags of rye grass. The steamer *Kerowlee* brought the first lot of grass seed from Germany, 100 bags. Exports of grass seed included 388 bags to France and 270 to Glasgow.

Another store is to be opened at Fort Smith, Ark., for the Fort Smith Seed Company.

Improvements are being made to the seed plant of the Saar Bros. at Fort Madison, Iowa.

A new warehouse for storing seed has been built at Pleasant Hill, Ill., for Elmore & Lemmon.

A new seed room and warehouse has been erected at Uniondale, Ind., for the Miller & Brickley Grain Company.

An addition is being built to the cotton gin and elevator on the Nunn Pedigreed Seed Farms at Porter, Okla. They are of concrete construction.

Ainsworth Bros. & Boone have their new seed corn house at Kentland, Ind., completed. It is 50x100 feet, five stories high and is equipped with modern machinery.

Two buildings have been purchased at Meridian, Miss., by the Kimbrough-Mitchell Seed Company. They will facilitate the company's handling its increased business.

Additional equipment has been purchased and installed by the Wilson Seed Company of Mt. Madison, Iowa, which will increase the handling facilities of the company.

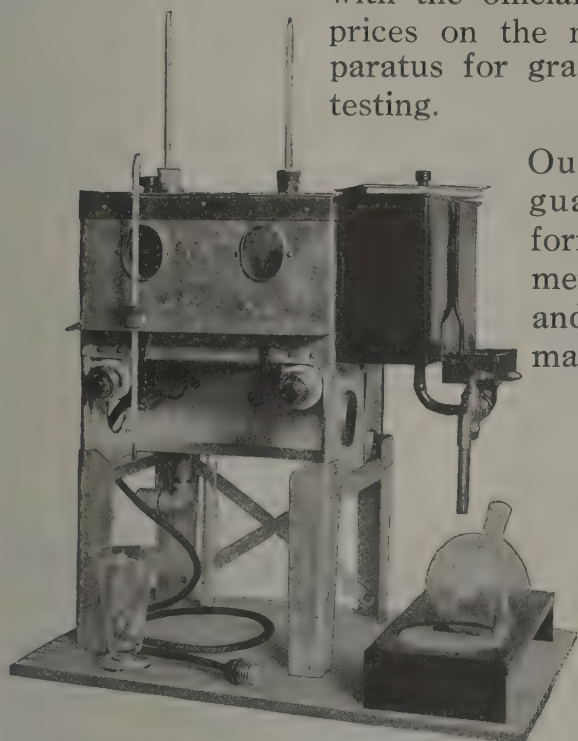
The offices of the Louisville Seed Company, Louisville, Ky., are at its new seed plant at Fifteenth and Lytle Streets. All departments of the business are done under one roof.

(Field Seeds continued on Page 520)

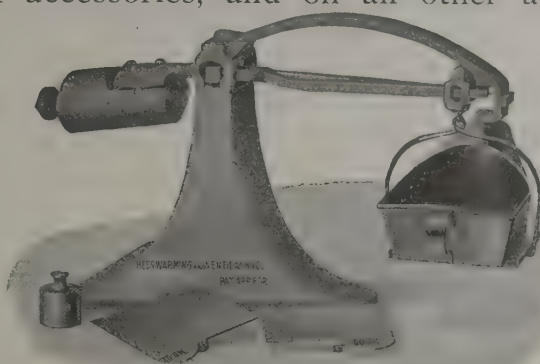
A NEW BOOKLET on the BROWN-DUVEL MOISTURE TESTER

with the official instructions for operating. Also the latest and best prices on the moisture tester and accessories, and on all other apparatus for grain inspection and testing.

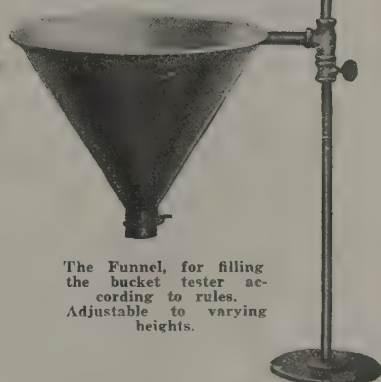
Our apparatus is guaranteed to conform to all government requirements and to be accurately made and calibrated.



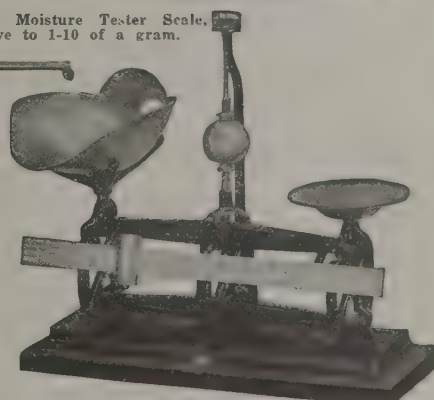
The Brown Duvel Moisture Tester with glass or copper flasks for alcohol, gas, electricity. Made with 1, 2, 4 or 6 flasks.



The Hess Moisture Tester Scale, sensitive to 1-10 of a gram.



The Funnel, for filling the bucket tester according to rules. Adjustable to varying heights.



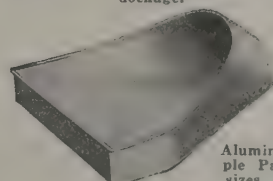
The Torsion Four-Purpose Scale, for moisture test, bushel-weight and for dockage.



The Kettle Tester for bushel-weight, in 1 pint, 1 quart and 2 quart sizes.



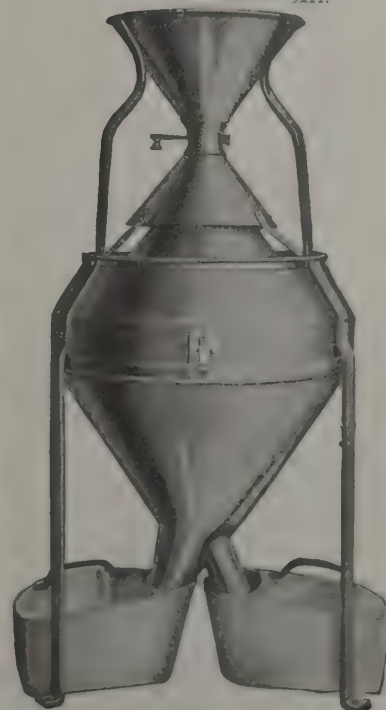
Brass Grain Triers or Probes. Three sizes, for wagon or car.



Aluminum Sample Pans, two sizes, 12x16, 9x11.



Aluminum Dockage Sieve and Pan, for corn. We have them for wheat also.



The Boerner Sampler or Splitter, Copper and steel.

Have you had our **FREE STROKER**? It contains all the grain grades, and it's useful, also, in connection with the Kettle Tester. *Ask for one.*

Are you interested in Driers? Hess Grain Driers are used everywhere.

Ask for free booklets and full information.

HESS WARMING & VENTILATING CO.

1210 Tacoma Bldg., Chicago, Ill.

Field Seeds

(Continued from Page 518)

FOR BETTER SPRING WHEAT SEED

The Spring Wheat Crop Improvement Association is embarking on a wide campaign for the betterment of seed wheat in the spring wheat territory. The campaign is in charge of an executive committee headed by Franklin Edwards of the Marshall (Minn.) Milling Company.

The campaign is to be started with a survey of the spring wheat district to find the amount of seed wheat available for next spring's planting, and questionnaires will be sent out to the growers on which they may indicate their needs for next year. When these two factors of supply and demand have been accurately estimated, the questions of varieties and quality will be taken up, and efforts made to interest all growers in better qualities and higher yields. It is planned to interest the children of farmers through the schools and in this way bring the seed question directly into the homes. Grain men generally, millers, bankers, and all lines directly or indirectly interested will be enlisted in the campaign.

STANDARDS FOR SEED PURITY

The Seed Laboratory of the United States Department of Agriculture has prepared the following table of percentages of purity and germination, for clovers and hay, which indicates in the opinion of the Department what the superior grades of these seeds should show:

| | Purity percentage | Germination percentage |
|--------------------|----------------------|---------------------------|
| Alfalfa | 99 | 95 |
| Alsike | 98 | 95 |
| Red clover | 98 | 95 |
| Timothy | 99 | 96 |
| Sweet clover | 98 | 90 |

Attention is especially called to a noticeable comparison observed the present season between those mixtures and samples of alsike only, or of timothy only. The mixture often contains an excess of impurity, carrying very frequently quantities of sorrel and nightflowering catchfly, and are an especial refuge for Canada thistle seed.

Germination results for immediately present season are about as follows: Timothy (separate samples), 96 per cent, (in alsike and timothy mixtures), 91 per cent; alsike (separate samples), 88 per cent, (in alsike and timothy mixtures), 54 per cent.

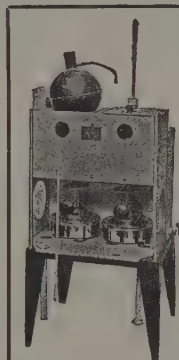
SERVICES RENDERED BY SEEDSMEN

One of the last issues of the *Seed Reporter* gave a brief summary of the services rendered by the dealers in field seeds as follows:

(1) Seedsmen offer a cash market for seeds at harvest time as well as at any other time; (2) they assume the risk of a declining market and absorb overhead expenses—storage, insurance, interest,

etc.—incidental to carrying stocks of seed from harvest time to or beyond planting time; (3) they usually have better facilities for recleaning, sacking, storing, and testing seeds than farmers have, hence are able to offer purer and better-packed seeds; (4) they enable the seed consumer to delay purchases until he can determine more accurately from prices ruling on various agricultural products during the spring, together with soil and climatic conditions at that time, the kinds and quantities of seeds which are most likely to result in the greatest profit to him; (5) their warehouses serve as an emergency storehouse or seed-bank from which seeds of regular or catch crops may be obtained quickly for immediate planting; and (6) they frequently tide over current shortages of certain kinds of seeds by carrying over stocks from the preceding year or years.

To these services might be added two more that are conducted, however, more by vegetable seedsmen than by field seedsmen, namely, (1) the dissemination in catalogues and circulars issued by them of valuable cultural and varietal information of various crops, and (2) the introduction and stimulation of the commercial production of new or little-tried kinds of varieties of seeds which have in the past proved to be of considerable value to the agriculture of this country.

BUY THIS TESTER
BECAUSE

- It is made according to Government Specifications.
- It is the most complete outfit on the market.
- The Thermometers are certified.
- It is equipped with "Pyrex" Glass or Copper Flasks.
- The Special Oat Graduate as well as the Regular Graduates are included.
- It is heated with Electricity, Alcohol or Gas.
- The electrical equipment is fully guaranteed against all defects.
- It is approved by the Mutual Fire Prevention Bureau.
- It will pay for itself many times in a season.

FLINT BROWN DUVEL
MOISTURE TESTER
MANUFACTURED BY
DE ROO GRAIN LABORATORIES
FLINT, MICH.

Its cost is
very reasonable.

Ask for full
information

WE BUY Timothy Clovers
Alfalfa Grasses

SUDAN — MILLET — CANES — WHEAT —
OATS — BARLEY — RYE — SPELTZ
SEND US YOUR SAMPLES
WE PAY HIGHEST PRICES

John A. Salzer Seed Co.
LA CROSSE WISCONSIN

SEND SAMPLES OF

Timothy, Red Clover, Alsike, Red Top,
Hairy Vetch, Bluegrass, Orchard Grass
Seed, Rye and Winter Oats

to

The Belt Seed Company

Importers and Exporters

BALTIMORE

We can offer D. E. Rape, Imported Orchard,
Alfalfa, Crimson Clover and Red Clover.

We Buy Carlots

**TIMOTHY
RED TOP
RED CLOVER
SUNFLOWER
MILLET**

Send us your samples

WE IMPORT AND EXPORT

I. L. RADWANER SEED CO.

NEW YORK, U. S. A.

REGISTERED BRANDS



MINNEAPOLIS SEED CO.

WHOLESALE FIELD SEEDS

HARDY NORTHERN GROWN SEEDS
OUR SPECIALTY

BUYERS, RECLEANERS, SELLERS

ASK OUR BIDS BEFORE SELLING

WRITE OR WIRE FOR SAMPLES AND PRICES

TIMOTHY, CLOVERS, MILLETSGRASSES, FORAGE SEEDS, SEED GRAINS,
PEAS, BEANS AND SCREENINGS.

P. O. ADDRESS: LOCK DRAWER 1546

OFFICES: 3444 RAILROAD AVE. SO.

SEED ELEVATOR & WAREHOUSES: 34TH TO 36TH STS. & R. R. AVE. SO.

GRAIN ELEVATORS & WAREHOUSES: 35TH TO 37TH STS. & R. R. AVE. SO.

MINNEAPOLIS, MINN.

SEEDS

Grain, Clover and Grass Seeds

CHAS. E. PRUNTY

7, 9 and 11 South Main St. SAINT LOUIS

A. W. SCHISLER SEED CO.

LET US KNOW YOUR WANTS IN
FIELD AND GARDEN SEEDS

Office: 704-6-8-10 North 4th St.

ST. LOUIS, MO.

Track Warehouse: S. W. Cor. Collins and Biddle

**TIMOTHY SUDAN
ALFALFA
FEED MILLET**

**RUDY PATRICK
SEED CO.** KANSAS
CITY, MO.

WHITNEY-ECKSTEIN SEED CO.

Wholesale Seed Merchants

Correspondence Invited

BUFFALO, N. Y.

SEED

We buy and
sell all varieties
of grass and
field seeds

The Albert Dickinson Co.
MINNEAPOLIS CHICAGO

Hay, Straw and Feed

(Continued from Page 518)

VARIATIONS IN MONTHLY CONSUMPTION OF FEEDS

The Bureau of Crop Estimates, Department of Agriculture, has made a careful survey and analysis on the monthly consumption of various feeding-stuffs. The Bureau estimates that in the six months from May to October nearly three-eighths of the year's corn ration is eaten, and from November to April a trifle over five-eighths. Oats preponderates as a feed from April to September, and its monthly consumption is more nearly uniform. Hay, silage and millfeed consumption is concentrated in the colder months, as is corn.

The highest monthly consumption of corn is in December, with 11.5 per cent, the lowest 4.6 per cent in August. Oats runs from 9.8 per cent in April to 6.8 per cent in December; barley from 10.9 in November to 6 in June and also July; rye from 10.3 in October to 7.1 in July; wheat from 11.4 in November to 5.8 in July. Millfeed consumption is highest in February and March with 11.5 per cent each and lowest in July with 4.8 per cent. Hay runs from 14.2 per cent in February and also in March to 3.2 per cent in August. Silage shows the widest variation of all, with 16.8 per cent of the year's total consumption in February and from there down to only 1 per cent each in July and August.

CONSUMERS OF HAY

BY WAYNE DINSMORE

Secretary Percheron Society of America

As farmers and horse breeders we have four main problems confronting us in the immediate future. These are: Tractor and truck competition; increasing the efficiency of horses as power units; reducing their cost of production and maintenance; and the foreign demand for horses.

The competition of trucks and tractors has had a distinct influence. It has frightened thousands of farmers into a partial or complete discontinuance of horse breeding. Where it inhibited the breeding of mares of 1,200 pounds or over to draft stallions this has been harmful. Where it stopped the use of small stallions or the breeding of very small or decidedly inferior mares it has been a benefit. More good than harm has probably resulted, for we had a vast surplus of horses ranging from 1,000 to 1,400 pounds, and horses as a whole were being produced more rapidly than demand warranted. Especially was this true of the smaller, inferior kinds. A surplus of inferior horses drags down the price on good ones, so that every man who is producing good horses has reason to thank any factor which materially retards the breeding of scrubs, even though the same factor may temporarily depress interest in the production of real drafters.

How far truck and tractor use may limit the field for drafters in the future no one with certainty can foretell. We do know that in the large cities trucks and teams appear to be reaching a balance. Teams are cheaper and more effective in short hauls, trucks superior in the long hauls. For a time trucks replaced teams at a very rapid rate in our large cities. Chicago, especially favorable to truck usage, has exact data on this. During the three years ending April 30, 1915, two-horse teams decreased 15 per cent, three-horse teams 30 per cent, and auto trucks one ton or over increased 441 per cent. During the next three years, ending April 30, 1918, two-horse teams decreased 21 per cent, three-horse teams only 8 per cent, and auto trucks over one ton increased only 174 per cent—less than half as rapidly as the preceding period. Furthermore, there was an increase of 2 per cent in the three-horse teams in the last year, and this tallies with the statement of very competent draymen, who stated that there had been a tendency on the part of some firms to swing back to heavy drafters for more of their short-haul work, for reasons of economy. In Greater New York there was during the two years and four months ending in March, 1917, a reduction of only 2,100 horses, despite a great increase in trucks. This was a decrease of less than 2 per cent.

The limit of profitable replacement appears to have been reached, or nearly so, and not 30 per cent of the heavy drafters have been displaced. The most experienced city transfer men, who have been in the business for 20 years or more, declare that teams can never be entirely eliminated in city work by trucks, as the increased cost of handling short-haul traffic would be prohibitive; and these are men who have both trucks and teams in constant service, do draying on a tonnage basis, and are interested in the proposition solely from a financial standpoint.

Tractor competition to draft horses on farms is a newer development, and has not yet reached its limit. The use of tractors will continue to increase up to the limit of profitable replacement, wherever that may be, and the farm power question will then go into a balance between tractors and horses, just

as in our cities. The proportion of horses displaced on farms, however, will be much less than in the cities, for there are many factors on the farm which do not exist in the city to retard the use of gas-engine power units. Among these the more important are soft ground, lack of skilled mechanics, distance from repairs, and the higher cost of gas, oil and repairs. Horses also cost less, whether reared or bought, and are maintained at a much lower cost, especially as regards shoeing and feed.

SUGGESTIONS FOR HAY TRADE BETTERMENT

Fred M. Williams of New York, recently elected president of the New York State Hay and Grain Dealers Association, in a letter to association members in which he discusses present conditions in the hay trade and makes some pertinent suggestions for trade betterment. Mr. Williams says, in part:

"I believe there has been sufficient hay gathered in the Eastern States and Canada to take care of the farm and market demands for a period of from 15 to 18 months. With the Government out of the market as a purchaser, a tremendous decrease in demand is bound to ensue, and I therefore see no reason why the farmers should expect other than a moderate scale of prices for hay. Country buyers and shippers should weigh the present and future outlook carefully, and buy only along conservative lines."

"The car situation should be improved this year due to elimination of the Government freight and troop movements, and I can see no reason to expect much difficulty in obtaining cars for hay shipments during the next few months, with the possibility that the supply of cars may be too generous. (This was written before the coal situation became acute.)"

"Shippers and receivers should get together with the railroads to devise some plan whereby the supply for market needs could be regulated so as to avoid large accumulations which are invariably followed by extreme shortages with consequent sharp fluctuations of values resulting many times in heavy losses. Shippers should communicate with their receivers regarding respective market conditions before starting shipments and be governed by any such advices furnished. Do not ship to out-of-way locations during an embargo period unless so directed by your receiver as it is such consignments that tend to demoralize market conditions resulting in heavy losses."

"Mark hay properly. Heavy Manila tags are according to the state law—see that large plain figures are made. Incorrect weights are increasing, see that your scales are true. These things protect you from trouble and save you loss."

"It is my opinion that hay shippers should immediately discontinue the practice of purchasing mow run hay. Farmers should prepare their hay same as the other crops. Hay should be baled, and then sold on grade, same as the grain crops are. The cost of operating hay presses absorbs a good share of the profits, and the farmer would do better to contract for the baling and have his hay ready for market in a business-like manner. Why not cast aside the old customs and start the new crop with the above system? A determined effort on the part of hay buyers and a little education with the farmer should accomplish this result. I believe that now is an opportune time to start the effort, and therefore I submit the matter for your careful consideration."

J. R. Talbert, F. B. Fuller, R. B. Henderson, James F. Carlton, J. M. Williamson and J. H. Cardall have filed incorporation papers as the Central Feed & Milling Company of Memphis, Tenn. The company is capitalized at \$25,000.

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

WANTED

Draftsman on grain elevators. Eastern location. State age, experience and salary desired. DRAFTSMAN, Box 9, care "American Elevator and Grain Trade," Chicago, Ill.

WANTED

Position by high-class and experienced grain and mill feed salesman, well acquainted with wholesale and large retail trade in New York and New England States. SEELEY, P. O. Box 179, Allentown, Pa.

FLOUR AND MILL FEEDS

Mixed cars of flour and mill feeds in 100-pound sacks are our specialties. Would like to send you a trial order to convince you of the superiority of our products. ANSTED & BURK CO., Springfield, Ohio.

FOR SALE

Nine-column visible adding and listing machine, in perfect working order. Guaranteed for nearly a year. Cost \$375; will take \$100 for it, or Liberty Bond. Also Underwood Typewriter; has back-spacer, tabulator, two-color ribbon. Perfect condition; \$50. Will ship either machine upon deposit of \$10. MEIER SEED COMPANY, Russell, Kan.

For Sale

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

ELEVATORS AND MILLS

WANTED

Elevator in good corn and oats section. Give price and full particulars. A. R. SMITH, 4447 W. Congress St., Chicago, Ill.

FOR SALE OR EXCHANGE

For town property or farm, an Ohio country elevator handling 300 cars of grain, hay and merchandise. Price \$4,500. H. F., Box 8, care "American Elevator and Grain Trade," Chicago, Ill.

A BARGAIN

A 500,000-bushel elevator for sale in Indianapolis. Grain dryer, oats sulphur equipment. Unrivalled switching facilities. For particulars, address INDIANAPOLIS ELEVATOR COMPANY, Indianapolis, Ind.

MACHINERY

FOR QUICK SALE

Fairbanks Track Scale, 100-ton, 50-foot, type registering beam. Overhauled this year and as good as new. Price \$500, f. o. b. Omaha. AMERICAN SUPPLY & MACHINERY COMPANY, Omaha, Neb.

FOR SALE

Attrition mills from 20 to 26 inches, single or double drive, all makes, from \$150 to \$225; one two-pair-high 9x24 Strong-Scott Rolls; only cut once, \$325; one elevator, 45-foot center, 4x6 cups, complete, \$60; one five-bushel Sonander Dump Automatic Scale, \$225; a large stock of track scales; hopper scales and automatic scales; one 24-inch ball bearing Monarch Attrition Mill, belt drive, \$375. If interested, write for our new catalogue. MILLS MACHINERY EXCHANGE, 201 Millers & Traders Bank Building, Minneapolis, Minn.

BAGS

FOR SALE

Two thousand second-hand cotton grain bags. Hold 2½ bushels of wheat. Price 25c each, f. o. b. St. Louis. FOELL & CO., 123 Market St., St. Louis, Mo.

FOR SALE—BURLAP BAGS OF EVERY KIND

New or second-hand, plain or printed with your brand; seamless cotton grain bags; sample bags; burlap, cotton, sheeting, or paper for car lining, etc. Wanted: Second-hand bags; best prices paid. WILLIAM ROSS & CO., 409 N. Peoria St., Chicago, Ill.

THE
**J. Rosenbaum
Grain Co.**

announces important private wire connections between Chicago and several country and primary points.

A branch office has been opened at Davenport, Iowa with G. M. Weil as Manager. Shippers in the corn belt should get in touch with this office.

The Chicago office has private wire connections with Lincoln, Ill., Peoria Ill., Davenport, Iowa and St. Louis—Kansas City.

Other lines will be installed just as fast as practicable.

Wm. E. White is the General Manager of the Private Wire Department.

For up-to-the-minute service based upon ability, dependability, aggressiveness and financial stability—

Write-Wire-Telephone

THE
J. Rosenbaum Grain Co.

CHICAGO

A New Day in the Making

December 25th, Nineteen Hundred Nineteen, should be a Merry Christmas for the people of many lands. Not all is sunshine in the world around us, but never has mankind looked out upon a future so radiant with promise, so filled with opportunities for progress and human betterment. Strikes, unrest, little revolutions, bits of anarchy, are but the surge and swirl of human currents in the wake of mighty storms. Nothing serious the matter and the remedy is work—"help, hope and hustle"—every man to the oars—all pulling together. And so to the rear pessimists, trouble-makers and political grand-mas, and to the fore the builders—men of vision who will lead us up to the table-lands of a new day for mankind upon the earth.

In this spirit let us face the sunrise, keep the coming Christmas and live the New Year of Nineteen Hundred and Twenty.

Lowell Hoit & Co.

LEATHER RUBBER BELTING CANVAS STITCHED

An Enormous Stock of New and Used Power Transmission Machinery, Belting, etc.

TEUSCHER & SON MACHINERY SUPPLY CO.

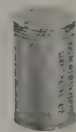
527 N. Second St. St. Louis, Mo.
Send for No. 18-B Bargain Book

SCALES REPAIRED AND SOLD

50 wagon scales, capacity from 4 to 15 ton. Any size platform in following makes: Fairbanks, Howe, Buffalo, Standard and Columbia. Each scale that leaves our factory is thoroughly overhauled and tested and guaranteed to be correct. We furnish competent men for outside work.

COLUMBIA SCALE CO.

2439 N. Crawford Ave. CHICAGO, ILL.



For Accurate Moisture Tests use our Grain Dealers Air Tight Cans for forwarding your grain samples. Write for prices.

ST. LOUIS PAPER CAN AND TUBE CO., ST. LOUIS, MO.

Save Splicing Costs and Delays

by using the Hunt Tension Adjusting Coupling on your rope drive



You can control all rope strength in the English system drive by simply twisting this coupling with rope in position on pulleys.

Ask for Catalog L-15-1, describing the coupling and "Stevedore" Transmission Rope.

C. W. HUNT CO., INC.

West New Brighton, N. Y., U. S. A.

ROPP'S CALCULATOR—Invaluable for Grain Dealers. Tables show at a glance the value of wheat, corn, rye, oats, barley, seeds, etc., at all market prices per bushel. Trade discounts, stock tables, capacity tables, short-cut arithmetic. Solves all grain problems with lightning rapidity. Price \$1.50.

Wanted—500 Barrel Mill

Wanted immediately, for export, complete equipment of mill, 500 barrel daily capacity. Machinery must be modern and in good condition and price reasonable.

We are prepared to inspect and buy at once. Please give full particulars. Address: W. H. C., Box 12, care American Elevator and Grain Trade, Chicago, Ill.

THE SYKES COMPANY

930 West 19th Place, Chicago

MAKERS OF

FIREPROOF WINDOWS

WE manufacture all gauges of corrugated iron, either painted or galvanized. We make Patent Cap Roofing, Roll Cap Roofing, "Y" Crimped Roofing, Metal Ceilings, etc., etc.

We make a specialty of

Corrugated Iron and Metal Roofing**For Grain Elevators**

And take contracts either for material alone or job completed. Write us for prices. We can save you money.

BOARD
OF
TRADE

DES MOINES

GRAIN
RECEIVERS

Consignments Solicited
We Place Grain to Arrive

SAWERS GRAIN CO.

Chicago Des Moines

Future Orders Given Personal Attention

TAYLOR & PATTON CO.

Terminal elevator capacity
250,000 bushels. Buyers and
shippers of Corn and Oats

DES MOINES

IOWA

Ankeney Linseed Mfg. Co.

Solicit Offers of Flax

or consign same to

Members Des Moines Board of Trade

W. H. Bartz & Co.

Grain Merchants

Hubbell Bldg.

DES MOINES, IA.

DES MOINES ELEVATOR & GRAIN CO.

Terminal elevator capacity
700,000 bushels. Oats for
Southern Trade a Specialty

DES MOINES

IOWA

**MID-WEST
Consumers Grain Co.**

GRAIN MERCHANTS

Corn—Oats—Wheat—Barley—Rye

417-418-419 Hubbell Building

DES MOINES

IOWA

BOARD
OF
TRADE

DULUTH

GRAIN
RECEIVERS

YOU Can keep in touch with the news and reports of the Grain and Elevator world by reading the "American Grain Trade."

SUBSCRIBE NOW—\$1.00 A YEAR.

WHITE GRAIN CO.**SHIPPERS**

FANCY OATS
MILL OATS
SCREENINGS

FEED WHEAT
BARLEY
RYE

Write for Samples and Quotations

DULUTH

FEEDS AND FEEDINGSTUFFS

A compendium of animal nutrition and the rational feeding of farm animals. Its basis is the extensive investigations with animals in the physiological laboratories of Europe and America and the numerous feeding trials with farm animals conducted by experiment stations, especially those of America, during the last thirty years. To these have been added the experiences of successful stockmen, gathered from the widest sources. The substance of all of the important work of our experiment stations in the feeding of farm animals, as set forth in hundreds of bulletins, is arranged condensed and made available to the reader. Tenth edition, revised and entirely rewritten. By W. A. Henry, Emeritus Professor of Agriculture, University of Wisconsin. Octavo size, 613 pages, bound in art vellum. Price \$3.00.

MITCHELL BROS. PUBLISHING COMPANY

431 South Dearborn Street, Chicago, Illinois

BOARD
OF
TRADE

PEORIA

GRAIN
RECEIVERS

CONSIGN YOUR
GRAIN TO

WARREN COMMISSION CO.

If you prefer to sell to arrive, wire or telephone for bids.

PEORIA, ILLINOIS

W. W. Dewey & Sons
GRAIN COMMISSION
26 Chamber of Commerce
PEORIA - - ILL.

P. B. & C. C. MILES
Established 1875 Incorporated 1910
PEORIA, ILL.
Handling Grain on Commission
Our Specialty

Louis Mueller, President F. W. Mueller, Sec. & Treas.
MUELLER GRAIN COMPANY
(Incorporated)
Receivers and Shippers
GRAIN
We Solicit Your Consignments of Grain
Room 39 Chamber of Commerce, PEORIA, ILL.

BUCKLEY & CO.
COMMISSION MERCHANTS
GRAIN, HAY AND SEEDS
PEORIA, ILL.
References: First National Bank, Peoria, Ill.
Commercial German National Bank, Peoria, Ill.

Try Feltman Service for Satisfaction
C. H. Feltman Grain Co.
Grain Commission
Room 27
Chamber of Commerce Peoria, Ill.

E. B. Conover Grain Co.
Receivers and Shippers
GRAIN CONSIGNMENTS
Peoria, Ill.

Smith-Hamilton Grain Co.
Grain Merchants
Peoria - Illinois
Members Correspondent
Chicago Board of Trade Beach-Wickham
Peoria Board of Trade Grain Company
Grain Dealers Nat'l Assn.

Good Prices and Quick Returns
TRY US
GEO. L. BOWMAN & CO.
Grain Commission
Room 24,
Chamber of Commerce PEORIA, ILL.

Turner-Hudnut Company
GRAIN COMMISSION
42-47 Chamber of Commerce, Peoria, Ill.

Robinson Telegraphic Cipher
Revised Edition
Cloth Binding \$1.50
Leather Binding 2.00
MITCHELL BROTHERS PUBLISHING CO.
431 S. Dearborn Street Chicago, Ill.

L. E. SLICK
Receiver and Shipper
CASH GRAIN
PEORIA, ILL. BLOOMINGTON, ILL.

SHAFTING, PULLEYS and BELTING
By Hubert E. Collins
An invaluable work for grain elevators, flour mills, or any other place where machinery is installed. Cloth bound.
Well illustrated. Price \$1.50
Mitchell Bros. Pub. Co. 431 S. Dearborn St., Chicago

CHAMBER
OF
COMMERCE

MILWAUKEE

GRAIN
RECEIVERS

For "UN-X-L-D" Service on CONSIGNMENTS
of GRAIN and SEEDS
SHIP THAT NEXT CAR TO
THE FRANKE GRAIN CO.
MILWAUKEE, WIS.
GRAIN-MILL FEEDS

John B. Meigs, Pres. G. C. Holstein, V. Pres. & Mgr.
J. A. Campbell, Secy. and Treas.
Mohr-Holstein Commission Co.
29 Chamber of Commerce
MILWAUKEE
Sample Grain a Specialty
Branch Offices at CHICAGO and MINNEAPOLIS

E. P. BACON CO.
Grain Commission Merchants
Sellers of Cash Grain and
Field Seeds on Consignment
MILWAUKEE—CHICAGO—MINNEAPOLIS

**Flanley Grain
Company**
Milwaukee, Wisconsin

FEEDS AND FEEDING STUFFS
A compendium of animal nutrition and the rational feeding of farm animals set forth in simple, helpful language. Its basis is the extensive investigations with animals in the physiological laboratories of Europe and America and the numerous feeding trials with farm animals conducted by experiment stations, especially those of America, during the last thirty years. To these have been added the experiences of successful stockmen, gathered from the widest sources. The substance of all of the important work of our experiment stations in the feeding of farm animals, as set forth in hundreds of bulletins, is arranged, condensed and made available to the reader. Tenth edition, revised and entirely rewritten. By W. A. Henry, Emeritus Professor of Agriculture, University of Wisconsin, Octavo size, 613 pages, bound in art vellum. Price \$3.00.
Mitchell Bros. Publishing Company 431 S. Dearborn Street
CHICAGO, ILLINOIS

"Consignments to 'Carson' Pay Best"
1548 Penobscott Bldg., DETROIT, MICH.

BOARD
OF
TRADE

KANSAS CITY

GRAIN
RECEIVERS

GET OUR BIDS TO ARRIVE



CONSIGNMENTS

ADDISON GRAIN CO.
Grain Commission Merchants
Consignment Specialists

"Quality Grain for Particular People"
Get Our PRICES Before You Buy or Sell

Kansas City - - - St. Louis

R. J. Thresher, President and General Manager
Eben S. Thresher, Secy. Chas. W. Avery, Treas.

THRESHER FULLER GRAIN CO.
Grain Commission Merchants
Consignments Solicited

Grain Bought and Sold for Future Delivery
311-314 Board of Trade KANSAS CITY, MO.

WESTERN GRAIN COMPANY

Shippers (a Speciality)

NATURAL FEEDING AND MILLING CORN, BARLEY, MILL FEED and FLOUR KAFFIR CORN, MILO MAIZE BULK OR SACKED

657-660 GIBRALTAR BUILDING

KANSAS CITY, MO.

MEMBERS—Kansas City Board of Trade, St. Louis Merchants' Exchange, Grain Dealers National Association

Consignments

Watkins Grain Co.

Kansas City - - - Mo.

CHAMBER
OF
COMMERCE

MINNEAPOLIS

GRAIN
RECEIVERS

GODFREY-BLANCHARD COMPANY

GRAIN

SUPERIOR SATISFACTORY SERVICE

MINNEAPOLIS

Cereal Grading Co.

W. T. FRASER, Vice Pres. & Mgr.

GRAIN MERCHANTS

CHOICE MILLING WHEAT & RYE

Twenty-five years' experience in selecting and forwarding choice wheat and rye for mills. Largest rye handlers in the West. Also shippers of oats, barley and screenings.

Operating Elevator L
612 Chamber of Commerce

MINNEAPOLIS, MINN.

THE SCROGGINS GRAIN CO.

SHIPPERS OF WHEAT

Minneapolis - Minn.

J. L. McCaull, President R. A. Dinsmore, Vice President
S. J. McCaull, Secretary A. M. Dinsmore, Treasurer

The McCaull-Dinsmore Co.
COMMISSION MERCHANTS

915-16-17 CHAMBER OF COMMERCE

MINNEAPOLIS, MINN.

DULUTH

MILWAUKEE

OMAHA

MILLING KINKS

The latest volume in the series of compilations made for grain elevator men, millers and millwrights, uniform in size and style with the "Book of Wrinkles" which has had an enormous demand among elevator operators. Contains 169 illustrated devices. Chapters are included on: Bins, Hoppers and Sinks; Valves and Spouting; Elevators and Conveyors; Receiving, Separating and Cleaning; Roll Auxiliaries; Sifters and Bolters; Belting and Transmission; Blending and Tempering; Filling and Packing; Sampling and Testing; Dust Collection; Lubrication; Heating, Ventilating and Fumigating; Special Tools and Devices; Miscellaneous.

PRICE \$1.00 POSTPAID

Mitchell Bros. Publishing Company
431 S. Dearborn St., Chicago, Ill.

The Cereals in America

By THOMAS F. HUNT, Professor of Agronomy, Cornell University

THE most valuable work of its kind ever published. The book takes up the cultivation, growth and marketing of wheat, corn, rye, barley, buckwheat and other cereals in this country, and treats each grain from its botanical relations to the products manufactured from it. An invaluable work to the grain man or miller. Printed on highly calendared paper, profusely illustrated and bound in cloth. 421 pages.

Price \$2.50 Postpaid

MITCHELL BROS. PUBLISHING COMPANY
431 South Dearborn Street CHICAGO, ILL.

MERCHANTS'
EXCHANGE

ST. LOUIS

GRAIN
RECEIVERS**Nanson Commission Co.**

(INCORPORATED)

GRAIN AND HAY

202 Chamber of Commerce

ST. LOUIS

Consignments a
SpecialtyWrite Us for Full
Information on
St. Louis Markets**GOFFE & CARKENER CO.**

RECEIVERS

GRAIN, HAY AND SEEDS

106-107 MERCHANTS EXCHANGE

ST. LOUIS

W. C. GOFFE G. S. CARKENER G. C. MARTIN, Jr.
K. C. Mo., Office, 101-102 Board of Trade**"THE CONSIGNMENT HOUSE
OF ST. LOUIS"**

GRAIN, HAY and GRASS SEEDS

Picker & Beardsley Com. Co.

125 MERCHANTS EXCHANGE

*When You Need a
Responsible Commission
House, Think of***Seele Bros. Grain Co.**

St. Louis

Service - Security**BOOKS FOR
GRAIN DEALERS**WALLS, BINS AND GRAIN ELEVATORS, by
Milo S. Ketchum. Illustrated, 556 pages.
Price\$5.00ROPP'S CALCULATOR, new and improved edi-
tion, with complete grain tables, and other
invaluable discount and stock tables.
Price\$1.50FUMIGATION METHODS, by Willis G. John-
son. Illustrated, 312 pages. Pages.....\$1.50ELWOOD'S GRAIN TABLES, a standard every-
where in the grain trade. Price.....\$1.50THE BOOK OF CORN, prepared by specialists
under the direction of Herbert Myrick. Il-
lustrated. Price\$1.50THE CEREALS IN AMERICA, an exhaustive
treatise by Prof. Thomas F. Hunt. Illus-
trated, 421 pages. Price.....\$2.50ROBINSON'S TELEGRAPHIC CIPHER, re-
vised and enlarged. Price.....\$1.50FEEDS AND FEEDINGSTUFFS, by Prof. W.
A. Henry. Illustrated, 613 pages. Price.....\$3.00UNIVERSAL GRAIN CODE, and Feed Mill
Supplement. Price\$3.00Any of the above sent postpaid
on receipt of price.**MITCHELL BROS. PUBLISHING CO.**
431 S. Dearborn St. Chicago, Ill.

RECEIVERS
EXPORTERS

**Marshall Hall
Grain Co.**

ST. LOUIS

SHIPPERS
OF GRAIN

MARTIN MULLALLY, Pres.

MULLALLY HAY AND GRAIN CO.

HAY, GRAIN AND SEEDS

Merchants Exchange

ST. LOUIS, MO.

ALEX. C. HARSH
PRESIDENTV. C. ELMORE
VICE-PRESIDENTJOHN H. HERRON
SECRETARY AND TREASURER**ELMORE-SCHULTZ GRAIN COMPANY**
EXPERT SERVICE GIVEN CUSTOMERS513-516 MERCHANTS EXCHANGE
ST. LOUIS, MO.322 S. WASHINGTON STREET
PEORIA, ILL.

440-445 POSTAL TELEGRAPH BUILDING, CHICAGO.

We SOLICIT A PORTION OF YOUR BUSINESS FOR ANY OF THE ABOVE MARKETS, ON THE
MERITS OF THE SERVICE WE CAN RENDER YOU.LET US HAVE YOUR OPTION BUSINESS IN CHICAGO AND ST. LOUIS.
NOTIFY AND MAKE DRAFT ON US AT ST. LOUIS ON ALL SHIPMENTS.**Toberman, Mackey & Company**

Fastest Growing Commission House in America.

Can handle your consignments in St. Louis and Kansas City.

GRAIN, HAY AND SEEDS

ST. LOUIS

KANSAS CITY

**THE HOUSE OF SERVICE
SCHULTZ & NIEMEIER
COMMISSION CO.**

305-306 Merchants Exchange

ST. LOUIS, MO.

C. L. Niemeier, President and Treasurer

H. H. Beckman, 1st Vice-President.

L. F. Schultz, 2nd Vice-President.

O. H. A. Kilz, Secretary.

GRAIN

Receivers and Shippers

Specialties: Soft Winter Wheat and White
Milling Corn.**Powell & O'Rourke**

GRAIN COMPANY

Receivers—Shippers

—Exporters

Operating

Brooklyn St. Elevator

ST. LOUIS - MISSOURI

"We Ship What We Sell"

BOARD
OF
TRADE

CHICAGO

GRAIN
RECEIVERS

MEMBERS:

Chicago Board of Trade
St. Louis Merchants Exchange

Chicago Phones: Harrison 6999
Harrison 5049
Wabash 8055

S. MINCER

CHICAGO: Postal Tel. Bldg. ST. LOUIS, MO.

Your Consignments and Orders in Futures Solicited

Mr. Oscar C. White, in charge of Cash Grain Dept., will be pleased to furnish bids on grain to arrive at all times.

HITCH & CARDER

Members Chicago Board of Trade

CASH GRAIN OUR SPECIALTY

605 Insurance Exchange Bldg.
Tel. Wabash 6584 CHICAGO

J. C. SHAFFER & CO.

GRAIN MERCHANTS

CHICAGO

WHEREVER GRAIN OR HAY IS HANDLED,
THERE THE FIRM OF
BRIDGE & LEONARD
IS WELL AND FAVORABLY KNOWN.

COMMISSION MERCHANTS

Members
Board of Trade, National Grain Dealers Association,
National Hay Association

61 to 65 Board of Trade
CHICAGO

WEGENER BROS.

GRAIN COMMISSION

CONSIGNMENTS—SALES TO ARRIVE

305 SO. LA SALLE ST. CHICAGO, ILL.

Philip H. Schifflin, Pres.

Eugene Schifflin, Secy-Treas.

PHILLIP H. SCHIFFLIN & CO.

Incorporated

Commission Merchants

515-518 Postal Telegraph Bldg. Chicago, Ill.
Consignments of all kinds of Grain and Field Seeds a Specialty

HENRY H. FREEMAN & CO.

Hay, Straw and Grain
COMMISSION MERCHANTS

Correspondence and Consignments Solicited.
Market Reports on Application.

66 Board of Trade CHICAGO, ILL.

Bartlett Frazier Co.

GRAIN

COMMISSION MERCHANTS

Western Union Building Chicago

The Real Market Place

for grain men is centered in
the advertising columns of the

"American Grain Trade"

Chicago Grain & Salvage Co.

SALVAGE

GRAIN DEALERS

Postal Telegraph Bldg., Chicago

THE UPDIKE GRAIN COMPANY

"The Reliable Consignment House"

CHICAGO

OMAHA

MILWAUKEE

SIoux CITY

BOARD
OF
TRADE

CHICAGO

GRAIN
RECEIVERS

Established 1852

Telephone Wabash 794

T. D. RANDALL & CO.

HAY AND STRAW

234 South La Salle Street

CHICAGO

RUMSEY & COMPANY

FOUNDED 1867

COMMISSION MERCHANTS

BOARD OF TRADE

CHICAGO

Gerstenberg & Company**COMMISSION MERCHANTS**

Grain Seeds and Mill Feed

Barley a Specialty

305-315 So. La Salle St.

CHICAGO, ILL.

Holburd, Warren & ChandlerStock Brokers and Commission
Merchants, Grain and ProvisionsBusiness Solicited in Any Department
Receiving, Shipping, Futures

208 S. La Salle St.

CHICAGO

E. LOWITZ

J. F. BARRETT

E. LOWITZ & CO.

Grain Commission

ROOKERY BUILDING

CHICAGO

MEMBERS: Chicago Board of Trade, Milwaukee and Minneap-
olis Chamber of Commerce, St. Louis Merchants Exchange, Kansas
City Board of Trade, Winnipeg Grain Exchange.W. SIMONS
President
S. E. SQUIRES
Vice-PresidentWARREN T. McCRAY
Vice-President**SAWERS Grain Co.**
CHICAGOW. F. McWHINNEY
TreasurerGEO. L. STEBBINS
SecretaryRepresentatives
W. A. Werner, Edgar E. Rice
Earl M. Davis, John M. DeBolt
Chas. H. Lyons

GEO. S. DOLE, Pres.

H. N. SAGER, Sec.

J. H. DOLE & CO.

(Established 1852)

Commission Merchants, Grain and Seeds

We solicit your
CONSIGNMENTS
and orders in futures

226 La Salle Street.

CHICAGO

We Buy

Wheat---Corn---Oats---Barley---Rye

Send Samples

The Quaker Oats Co.

Cereal Millers

Grain Dept. 1600 Railway Exchange
CHICAGO**H. M. PAYNTER**

With ROGERS GRAIN COMPANY

Grain Commission

Correspondence Solicited

Postal Telegraph Building

CHICAGO

NORTHERN GRAIN & WAREHOUSE CO.**Grain Merchants**

538 Postal Bldg. Chicago

ARMOUR GRAIN COMPANY

CHICAGO, ILL.

GRAIN DEALERS

Manufacturers of

ARMOUR'S STOCK & DAIRY FEEDS

AND

ARMOUR'S OATS

ARMOUR'S CORN FLAKES

ARMOUR'S PANCAKE FLOUR

E. W. BAILEY & CO.**COMMISSION MERCHANTS**

GRAIN, SEEDS AND PROVISIONS

72 Board of Trade

CHICAGO

J. Herbert Ware Edward F. Leland

CONSIGNyour Grain and Seeds, and send your
orders for

GRAIN, PROVISIONS and STOCKS to

WARE & LELAND190 W. JACKSON BOULEVARD
Royal Insurance Bldg.
CHICAGOLong Distance Phones:
Wabash 3262 Automatic 51073

W. A. LAMSON

H. H. LOBDELL

L. F. GATES

Lamson Bros. & Co.

Grain

1874 Commission 1919
Merchants

Forty-five Years of Service in the Grain Trade

HOME OFFICE
6 Board of Trade

Chicago

Rosenbaum Brothers*Solicits Your Consignments
of Grain and Seeds*

77 Board of Trade

CHICAGO, ILL.

Mayer Holbrook & Co.**GRAIN
COMMISSION**Consignments, Sales to Arrive,
Our Specialty**SERVICE THAT SERVES—
OUR GUARANTEE**Purchases for millers, feed
manufacturers, etc.Webster Building
Hubbell Bldg.Chicago, Ill.
Des Moines, Iowa**POPE & ECKHARDT Co.****COMMISSION MERCHANTS****GRAIN AND SEEDS**

111 W. Jackson Blvd.

CHICAGO

CORN
EXCHANGE

BUFFALO

GRAIN
RECEIVERS



"Follow The Flag"
With Your Shipments

URMSTON GRAIN COMPANY
Buffalo, N. Y.



Buffalo Grain Company

Receivers, Forwarders and Commission
Consignments Solicited

Est. 1903

Barley a Specialty



Wheat-Rye-Corn-Barley-Oats

Shipped to

Eastern Grain, Mill and Elevator Corporation

Operators of Concrete Elevator, Central Elevator and Iron Elevator

5,000,000 BUSHELS CAPACITY

Will be properly cared for on arrival and show best possible results

Ship Us Your
Corn, Oats and Wheat
Regardless Of Its Condition

Send us your consignments

PRATT & CO.

OPERATORS OF
SUPERIOR ELEVATOR

910 Chamber of Commerce.

Buffalo, N. Y.

L. S. CHURCHILL, President
G. W. BARTLETT, Treasurer

The Churchill Grain & Seed Co.

| | |
|----------------------------|--------------------------------|
| Commission Orders Executed | Grain and Seed Bought and Sold |
| Offices: Buffalo, N. Y. | Members |
| Toledo, Ohio | New York Produce Exchange |
| Seed Warehouse: | Toledo Produce Exchange |
| Located at Toledo, Ohio | Buffalo Corn Exchange |

S. M. RATCLIFFE
Grain and Hay

ALWAYS IN THE MARKET FOR OATS
Superior facilities for handling Consignments

Chamber of Commerce

BUFFALO, N. Y.

UNIVERSAL GRAIN CODE
And Mill Feed Supplement
Compiled for Use of
Grain and Milling Trades

OF THE
United States and Canada
Send for a Copy Now
Price \$3.00

MITCHELL BROS. PUBLISHING CO.
431 South Dearborn St., Chicago, Ill.

FOR SATISFACTORY RESULTS

CONSIGN

Your Wheat, Corn and Oats to

THE ELECTRIC GRAIN ELEVATOR CO.
Buffalo, N. Y.

A Card Ad

in the

"American Grain Trade"

has Excellent Display and
is Always Easy to Find.

BURNS GRAIN COMPANY

CORN
EXCHANGE

BUFFALO

GRAIN
RECEIVERS

Consignments Only

McConnell Grain Corporation

BUFFALO

THE TOWNSEND WARD CO.

Chamber of Commerce Bldg.
BUFFALO, N. Y.

Wholesale Merchants and Grain Commission

Eliminate risk of HEATING of early
shipments of NEW CORN.

Our elevator at FOSTORIA, O., is only
an overnight haul from your station.

Because of our ability to handle grain
rapidly, there was NEVER AN EM-
BARGO AGAINST FOSTORIA.

BOARD
OF
TRADE

INDIANAPOLIS

GRAIN
RECEIVERS

John W. McCardle Bert K. Black Clyde A. McCardle

McCardle-Black Company

GRAIN COMMISSION MERCHANTS

Members Chicago Board of Trade
DIRECT PRIVATE WIRE

Main Office: Indianapolis, Ind. Branch Offices:
Frankfort, Ind., Crawfordsville,
Ind., and Paris, Ill.

ESTABLISHED 1883

H. E. KINNEY GRAIN CO.

619 Board of Trade, Indianapolis, Ind.

Consignments Have Personal Attention

SAM J. BRUCE

Manager Consignment Department.

ESTABLISHED 1904

Fred A. Vawter

Chas. M. Vawter

"We Serve You Better"

BELT ELEVATOR & FEED CO.

Commission Grain Brokerage

Sam J. Bruce, Manager Commission Dept.

Cash—Futures—Private Wire



Try our Indianapolis Service with your con-
signments

PHONES { Bell—Main 1867 515 Board of Trade
Automatic 28-413 Indianapolis

WM. R. EVANS GRAIN CO.

Grain Merchants

Our experience will get you the results you
are after. Send us your corn and oat ship-
ments.

Board of Trade Bldg. Indianapolis, Ind.

P. M. GALE GRAIN CO.

BROKERAGE

My Specialty

Let me buy for you in Indianapolis.

I satisfy others—why not you?

INDIANAPOLIS - - - INDIANA

Robinson Telegraphic Cipher

Revised Edition

Cloth Binding \$1.50
Leather Binding 2.00

MITCHELL BROTHERS PUBLISHING CO.

431 S. Dearborn Street Chicago, Ill.

W. D. Springer

J. A. McComas

Springer-McComas Grain Co.

Elevator Operators

and

Commission Merchants

423 Board of Trade, Indianapolis, Ind.



"Follow The Flag"

With Your Shipments

URMSTON GRAIN COMPANY

Indianapolis, Ind.

Experienced Advertisers Know

that the "American Grain Trade" is preserved for reference by elevator men, country grain shippers and grain receivers at the terminal markets long after other journals have been thrown away.

**COMMERCIAL
EXCHANGE**

PHILADELPHIA

**RECEIVERS
AND
SHIPPERS**

W. M. RICHARDSON
RICHARDSON BROS.
BROKERS
GRAIN, FLOUR and MILL FEEDS
THE BOURSE, PHILADELPHIA, PA.

Members { Grain Dealers National Ass'n.
Commercial Exchange Philadelphia, Pa.
Chamber of Commerce Philadelphia, Pa.
Illinois Grain Dealers Ass'n.
Indiana Grain Dealers Ass'n.

S. H. YOUNG & CO.
GRAIN, FLOUR, ALFALFA AND
MILL FEEDS
Consignments Solicited
417-419 "The Bourse," PHILADELPHIA

E. L. ROGERS & CO.
COMMISSION MERCHANTS
Receivers and Shippers of
HAY, STRAW, GRAIN, Etc.
Over 50 years in the business
358 Bourse Bldg., PHILADELPHIA, PA

L. F. MILLER & SONS
Receivers and Shippers of
GRAIN, FEED, SEEDS, HAY, ETC.
OFFICE: 2931 N. BROAD ST., PHILADELPHIA, PA.
CONSIGNMENTS SOLICITED
Special attention given to the handling of
CORN and OATS

The fact that we want your Wheat, Corn,
Oats and Mill Feed does not interest you, but the
fact that it will make you money to ship to us
does. Hundreds of satisfied shippers will say that
LEMONT makes them money.
E. K. LEMONT & SON
411 Bourse Building PHILADELPHIA, PA.

ROPP'S CALCULATOR
A new and improved edition of this standard work, in-
valuable to grain dealers. Tables show at a glance the
value of wheat, corn, rye, oats, barley, seeds, etc., at all
market prices per bushel; also the weight reduced to
bushels. Trade discounts, stock tables, capacity tables,
short-cut arithmetic. Solve any problem in the twink-
ling of an eye. The grain tables alone make it indispen-
sable to all who handle grain. Price \$1.50 postpaid.
MITCHELL BROS. PUBLISHING CO.
431 S. Dearborn St., Chicago, Ill.

CONSIGN
OR
SELL US
YOUR WHEAT

E. E. DELP GRAIN CO.
EXPORTERS
453 Bourse Building Philadelphia, Pa.

SELL US
YOUR
BARLEY AND
RYE

**CHAMBER
OF
COMMERCE**

BALTIMORE

**GRAIN
RECEIVERS**

OUR PATRONS Get the Service
JOHN T. FAHEY & CO.
GRAIN RECEIVERS AND EXPORTERS
Send Us Your BALTIMORE Shipments
BALTIMORE, MD.

**HAVE YOU
TRIED**
E. STEEN & BRO.
GRAIN--HAY
Baltimore, - Md.

CHAS. ENGLAND & CO.
RECEIVERS OF
GRAIN and HAY
308-310 Chamber of Commerce
BALTIMORE, MD.

Baltimore Pearl Hominy Co.
Seaboard Corn Mills
Baltimore, Md. S. F. Evans, Mgr.
We are always in the market for White and
Yellow Corn for Milling purposes.
Correspondence and Offers Solicited

New Firm Name But Same GOOD SERVICE
WALTER F. MACNEAL & CO.
Formerly of and Successors to
J. M. FRISCH & CO.
316 Guilford Avenue, Baltimore
For 25 Years We **GRAIN - HAY**
Have Specialized
Consignments Solicited

WALLS, BINS AND GRAIN ELEVATORS

By MILO S. KETCHUM

Design and construction are covered completely in this book of 556 pages. The new second edition brings it up to the minute with fresh data, new cuts, and a modern treatment throughout. Over 150 pages were added to the old edition. The new chapters on "Reinforced Concrete" and "Methods of Construction and Cost of Retaining Walls" are especially valuable. It is the standard work on stresses due to granular materials.

PRICE \$5.00 POSTPAID

MITCHELL BROS. PUBLISHING COMPANY

431 S. DEARBORN STREET
CHICAGO, ILL.

PRODUCE
EXCHANGE

NEW YORK

GRAIN
RECEIVERS**BRAINARD COMMISSION COMPANY**
RECEIVERS AND EXPORTERS**OATS AND BARLEY**Send samples all off grade grains
Consignments SolicitedProduce Exchange
NEW YORK**L. W. FORBELL & CO.**
Commission Merchants

342 Produce Exchange NEW YORK

Try us with consignments of oats and corn.
We are Specialists in these grains and
are strictly Commission Merchants.GRAIN
RECEIVERS

OTHER MARKETS

GRAIN
RECEIVERSE. A. MOWREY
Pres. and Mgr.C. W. COLBY
Secretary

HUTCHINSON, KANS.

HUTCHINSON GRAIN CO.

Receivers and Shippers

GRAIN, HAY and FEED

DEALERS IN

Kansas Turkey

Hard Wheat

CINCINNATI, OHIO

Consign to or Ask for Bids

The Brouse - Skidmore Grain Co.Receivers and Shippers
GRAIN-HAY-FEED

CINCINNATI, OHIO

Milling Wheat and Corn Our Specialty Mail Us Samples

CRAWFORDSVILLE, IND.**CRABBS REYNOLDS TAYLOR CO.**
Crawfordsville, Ind.**GRAIN****Clover and Timothy Seeds**

Get in touch with us.

LANCASTER, PA.**DO YOU REALIZE**That country trade always pays you
best in every way?We work a large country business.
See the point?

JONAS F. EBY & SON, LANCASTER, PA.

DENVER, COL.**The Denver Elevator**

Wholesale Grain and Grain Products

Colorado and Kansas Flours

DENVER, COLORADO

CEDAR RAPIDS, IOWA**Cedar Rapids Grain Co.**

RECEIVERS AND SHIPPERS

CEDAR RAPIDS - IOWA

MEMPHIS, TENN.**WALTER M. BROWNE**

GRAIN HAY AND MILL FEED

Consignments Solicited. MEMPHIS, TENN.

Member { Memphis Merchants Exchange
Memphis Grain and Hay Association
Grain Dealers National Association
National Hay Dealers Association**Ady & Crowe Merc. Co.**

Denver, Colo.

GRAIN HAY BEANS

A. & C. Poultry Feeds

KING-WILDER GRAIN CO.

BUYERS and SHIPPERS

Write, wire, phone

Cedar Rapids Nat'l. Bank Building, CEDAR RAPIDS, IA.

TERRE HAUTE, IND.**Paul Kuhn & Co.**

Receivers and Shippers

GRAIN

Terre Haute

Indiana

SIOUX CITY, IOWAW. M. Bell, Pres. W. A. Hottensen, Secy. and Treas.
F. H. Hunting, Vice-Pres. and Gen. Mgr.**BELL HUNTING & CO., Inc.**OFFER BEST FACILITIES
FOR HANDLING YOUR GRAIN SERVICE

SIOUX CITY

IOWA

BRATTLEBORO, VT.**E. CROSBY & COMPANY**

WHOLESALE

FLOUR and FEED

MILL AND ELEVATOR AT

Brattleboro, Vermont

Storage capacity, 500 cars sacked goods,
125,000 bu. bulk grains.**SPRINGFIELD, ILL.****John H. Lloyd & Co.**

Grain Merchants

Members—
Chicago Board of Trade
Grain Dealers Nat'l Assn.
Illinois Grain Dealers' Assn.Springfield,
Illinois**ELWOOD'S GRAIN TABLES**Show the value of any number of bushels or pounds of Wheat, Rye, Oats, Corn or Barley at any
given price from 10 cents to \$2.00 per bushel. One of the most useful books ever offered to the trade.
Endorsed by prominent grain dealers. Bound in cloth, 200 pages. Mailed on receipt of price, \$1.50.

MITCHELL BROS. PUBLISHING CO., 431 S. Dearborn St., Chicago

THE BOOK OF WRINKLESNeeded by Every Grain Dealer
Contains 171 ingenious and well described and
illustrated devices for saving time, labor and
money in elevators and mills.

Price, \$1.25 Postpaid.

Mitchell Bros. Pub. Co. 431 S. Dearborn St.
CHICAGO

LEADING GRAIN RECEIVERS IN ALL MARKETS

ATLANTA, GA.

Gregg, Jos., & Son, grain & hay brokers.*†

BALTIMORE, MD.

Baltimore Pearl Hominy Co., corn buyers.*
Belt Seed Co., seeds.
England & Co., Chas., grain, hay receivers.*†
Fahey & Co., John T., receivers, exporters.*
Hax & Co., G. A., grain and hay receivers.*†
Macneal & Co., Walter F., grain, hay.*†
Scarlett & Co., Wm. G., seeds.
Steen & Bro., E., grain, hay.*†

BLOOMINGTON, ILL.

Bloomington Mills, R. C. Baldwin, Mgr., shippers.
Slick, L. E., receivers and shippers.*
Worth-Gyles Grain Co., buyers, shippers cash and future grain.*

BRATTLEBORO, VT.

Crosby & Co., E., grain, flour, feed.*

BUFFALO, N. Y.

Buffalo Grain Co., receivers, shippers.*
Churchill Grain & Seed Co., grain and seeds.*
Eastern Grain, Mill & Elevator Corporation, wheat, rye, corn, barley, oats.*†
Electric Grain Elevator Co., consignments.*†
McConnell Grain Corporation, grain.*†
Pratt & Co., corn, oats, wheat.*
Ratcliffe, S. M., grain and hay.*†
Townsend-Ward Co., receivers and shippers.*
Urmston Grain Co., grain commission.*†
Whitney-Eckstein Seed Co., wholesale seed merchants.

CEDAR RAPIDS, IOWA.

Cedar Rapids Grain Co., grain merchants.*
King-Wilder Grain Co., buyers and shippers.*

CHICAGO, ILL.

Armour Grain Co., grain buyers.*
Bache & Co., J. S., grain, seeds, consignments.
Bailey & Co., E. W., commission merchants.*
Bartlett Frazier Co., receivers and shippers.*
Bridge & Leonard, grain, hay.*†
Chicago Grain & Salvage Co., salvage grain dealers.
Dickinson Co., Albert, seeds.
Dole & Co., J. H., commission merchants.*
Freeman & Co., Henry H., hay, straw, grain.*†
Gerstenberg & Co., grain and seeds.*
Hitch & Carder, grain commission.*
Hoit & Co., Lowell, com. grain, seeds.
Hulburd, Warren & Chandler, com. merchants.*
Illinois Seed Co., seed merchants.
Lamson Bros. & Co., commission merchants.*
Lowitz & Co., E., grain commission.*
Mayer, Holbrook & Co., grain commission.*
McCartney Bros Co., grain commission.
McKenna & Rodgers, com. merchants.*
Miller & Co., Albert, hay and produce.*†
Mincer, S., consignments, futures.
Norris Grain Co., grain merchants.*
Northern Grain & Warehouse Co., grain.
Paynter, H. M., grain commission.
Pope & Eckhardt Co., grain and seeds.*
Quaker Oats Co., wheat, corn, oats, barley, rye.
Randall Co., T. D., hay and straw.
Rosenbaum Brothers, receivers, shippers.*†
Rosenbaum Grain Co., J., shippers.*
Rumsey & Co., grain commission.*
Sawers Grain Co., grain commission.*
Schiffin & Co., Philip H., com. merchants.*
Shaffer, J. C., & Co., grain merchants.*
Simons, Day & Co., grain, stocks, bonds.*
Updike Grain Co., consignments.
Wagner & Co., E. W., receivers, shippers.*
Ware & Leland, grain and seeds.*
Wegener Bros., grain commission.

CINCINNATI, OHIO.

Brouse-Skidmore Grain Co., rec. & shipper.*†

CLEVELAND, OHIO

Cleveland Grain Co., receivers and shippers.*†
Shepard, Clark Co., grain merchants.*†

CRAWFORDSVILLE, IND.

Crabbs-Reynolds-Taylor Co., grain, seeds.*†

DECATUR, ILL.

Baldwin & Co., H. I., grain brokers.*

DENVER, COLO.

Ady & Crowe Mercantile Co., grain, hay, beans.*†
Denver Elevator, The, grain.*

DES MOINES, IOWA.

Ankeney Linseed Mfg. Co., flax.
Bart & Co., W. H., grain merchants.*
Des Moines Elevator & Grain Co., grain merchants.
Mid-West Consumer's Grain Co., grain merchants.*
Sawers Grain Co., grain merchants.
Taylor & Patton Co., grain merchants.*

DETROIT, MICH.

Carson & Co., H. C., wheat, corn, oats, rye, beans.*
Dumont, Roberts & Co., receivers, shippers.*

DULUTH, MINN.

White Grain Co., grain and hay.*†

EVANSVILLE, IND.

Small & Co., Inc., W. H., field seeds, grain.*

HUTCHINSON, KAN.

Hutchinson Grain Co., grain, hay, feed.

INDIANAPOLIS, IND.

Belt Elevator & Feed Co., commission, grain, brokerage.*
Boyd Grain Co., Bert A., grain commission.*
Evans Grain Co., Wm. R., grain merchants.
Gale Grain Co., P. M., brokerage.*
Hayward-Rich Grain Co., commission and brokerage.*
Kendrick & Sloan Co., receivers and shippers.*†
Kinney, H. E., Grain Co., grain, hay, feed.*†
McCardle-Black Co., grain commission.
Merchants Hay & Grain Co., grain and hay.*†
Sawers Grain Co., grain commission.*
Springer-McComas Grain Co., grain commission.*
Urmston Grain Co., grain commission.*†
Witt, Frank A., grain commission and brokerage.

KANSAS CITY, MO.

Addison Grain Co., grain commission merchants.
Moore-Lawless Grain Co., grain receivers.*
Moore-Seaver Grain Co., corn and oats.*
Peppard Seed Co., J. G., alfalfa seed, millet.
Rudy-Patrick Seed Co., seeds.
Thresher Fuller Grain Co., commission.*
Watkins Grain Co., consignments.*
Western Grain Co., shippers grain and feed.*

LA CROSSE, WIS.

Salzer Seed Co., John A., seeds.

LANCASTER, PA.

Eby & Sons, Jonas F., receivers and shippers.*†

LIMA, OHIO.

Hurley Buchholtz Co., wholesale grain, hay, straw.*†

LOUISVILLE, KY.

Edinger & Co.,† grain, hay, feed.
Farmer & Sons, Oscar, grain, hay, feed.*†
Williams & Monroe, grain, stocks, cotton.

MEMPHIS, TENN.

Browne, Walter M., grain, hay, mill feed.*
U. S. Feed Co., receivers and shippers.*†

MIDDLEPOINT, OHIO

Pollard Grain Co., wholesale grain, hay.*

MILWAUKEE, WIS.

Bacon Co., E. P., grain commission.*
Courtene Seed Co., seeds.
Donahue-Stratton Co., buyers and shippers.*
Flanley Grain Co., grain.
Franke Grain Co., receivers and shippers.*
Kamm Co., P. C., grain merchants.*
Kellogg Seed Co., seeds.
Mohr-Holstein Commission Co., grain com.*
Taylor & Bournique Co., corn, oats, barley.*

MINNEAPOLIS, MINN.

Cereal Grading Co., grain merchants.*
Godfrey-Blanchard Co., grain commission.*
McCaull-Dinsmore Co., com. merchants.*
Quinn, Shepherdson Co., grain merchants.*
Scroggins Grain Co., The, wheat shippers.*

NEW CASTLE, PA.

Hamilton Co., grain, feed, flour, hay, potatoes.

NEW YORK, N. Y.

Brainard Commission Co., oats, barley.*
Forbell & Co., L. W., com. merchants.*
Power & Co., W. D., hay, straw, produce.*†

PEORIA, ILL.

Buckley & Co., grain, hay, seeds.*
Bowman & Co., Geo. L., grain commission.
Cole Grain Co., Geo. W., grain receivers.*
Conover Grain Co., E. B., receivers, shippers.
Dewey & Sons, W. W., grain commission.*
Feltman Grain Co., C. H., grain commission.*
Luke Grain Co., grain commission.*
Miles, P. B. & C. C., grain commission.*†
Mueller Grain Co., receivers and shippers.*
Rumsey, Moore & Co., grain commission.*
Slick, L. E., receivers and shippers, cash grain.
Smith-Hamilton Grain Co., grain.*
Warren Commission Co., consignments.*

PHILADELPHIA, PA.

Delp Grain Co., E. E., grain commission.*
Lemont & Son, E. K., wheat, corn, oats, feed.*†
Miller & Sons, L. F., receivers and shippers.*†
Richardson Bros., grain, flour, mill feeds.*
Rogers & Co., E. L., receivers and shippers.*†
Young & Co., S. H., grain, flour and feeds.

PITTSBURGH, PA.

Foster Co., C. A., wholesale grain, hay.*†
Harper Grain Co., grain commission.
Heck & Co., W. F., grain, hay, mill feeds.*†
Herb Bros. & Martin, grain and hay.*†
McCague, R. S., grain and hay.*†
Rogers & Co., Geo. E., receivers & shippers.*†
Walton Co., Samuel, hay, grain, mill feed.*†

RICHMOND, VA.

Beveridge & Co., S. T., grain, hay, feed.*†
Southern Brokerage Co., hay, grain, feed.*

ST. LOUIS, MO.

Elmore-Schultz Grain Co., receivers, shippers.*†
Goffe & Carkener Co., grain, hay, seeds.*†
Graham & Martin Grain Co., rec. exclusively.*†
Langenberg Bros. Grain Co., grain com.*†
Marshall Hall Grain Co., receivers, shippers and exporters.*
Mullally Hay & Grain Co.*†
Nanson Commission Co., receivers, shippers.*†
Picker & Beardsley Com. Co., grain, hay.*†
Powell & O'Rourke Grain Co., receivers, shippers, exporters.*
Prunty, Chas. E., grain and seeds.
Schisler Seed Co., A. W., field and garden seeds.
Schultz & Niemeier Com. Co., receivers and shippers.*
Seele Bros. Grain Co., commission.*
Toberman, Mackey & Co., grain, hay, seeds.*†
Turner Grain Co., grain commission.*

SIDNEY, OHIO.

Custenborder & Co., E. T., buyers and shippers of grain in car lots.*
Wells Co., J. E., wholesale grain, seed.*

SIOUX CITY, IOWA.

Bell, Hunting & Co., grain.

SPRINGFIELD, ILL.

Lloyd & Co., John H., grain merchants.*

TERRE HAUTE, IND.

Kuhn & Co., Paul, receivers and shippers.

TIFFIN, OHIO.

Sneath-Cunningham Co., grain and seeds.

TOLEDO, OHIO.

De Vore & Co., H. W., grain, seeds.*
King & Co., C. A., grain and seeds.*†
Raddatz & Co., H. D., grain, seeds.*
Rice Grain Co., receivers and shippers.*
Southworth & Co., grain and seeds.*†
Wickenhiser & Co., John, grain dealers.*
Young Grain Co., grain, seeds.*
Zahn & Co., J. F., grain and seeds.*†

TOPEKA, KAN.

Derby Grain Co., wheat, oats, corn.*
Golden Belt Grain & Elevator Co., grain.*

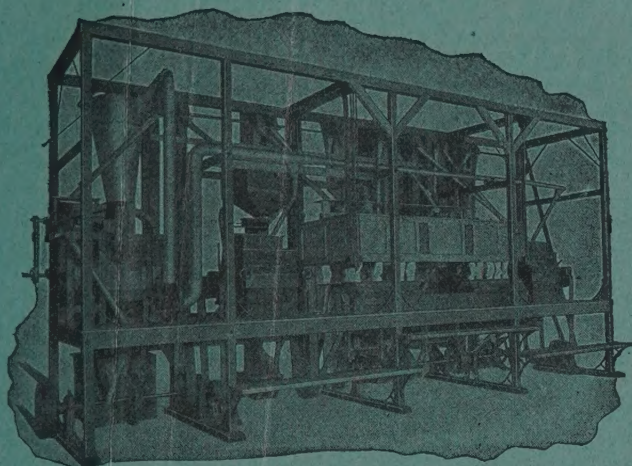
WINCHESTER, IND.

Goodrich Bros., wholesale grain, seeds, hay.*†

*Members Grain Dealers' National Association. †Members National Hay Association.

THE WOLF

Self-Contained Flour Mills



"Having seen one of your Self-Contained Mills in operation in Pendleton, Oregon, am asking you to advise quickest delivery of two of the largest size."

H. P. Preston Co.

(These machines are now on the way. A visit to a Wolf Self-Contained Mill will convince you of its exceptional merits.)

A complete Six Reduction Mill with our celebrated Level-sifter and Two-Way Flour Conveyor. This mill has the most complete, satisfactory milling equipment ever put into a practical, self-contained-one-man-flour-mill.

It avoids costly buildings.

Set up in any convenient room.

Needs no expensive millwrights.

Makes from 15 to 50 barrels per day.

Economic in the use of power.

Keeps up-keep down.

Quality, yield and capacity assured.

One man handles the whole proposition.

We guarantee the Wolf Self-Contained Demountable Mill to be a complete Six Reduction Mill, ready to apply the power and begin sacking that fine wholesome flour. Write for complete details. Bulletin 114.

The Wolf Company

"Builders of Complete Flour,
Corn, Cereal and Feed Mills."

CHAMBERSBURG, PA., - - - U. S. A.

ANNOUNCING A NEW BOOK FOR MILLS AND ELEVATORS



ANY operators of elevators and flour mills have derived help from the ingenious devices published in the "Book of Wrinkles." The great demand for this book, which is now in its Fifth Edition, has impelled the publishers to issue a new volume in the series:

Milling Kinks

which is just off the press and ready for delivery. Since it is probable that the first edition will be rapidly exhausted, those desiring a copy are urged to send in their orders immediately.



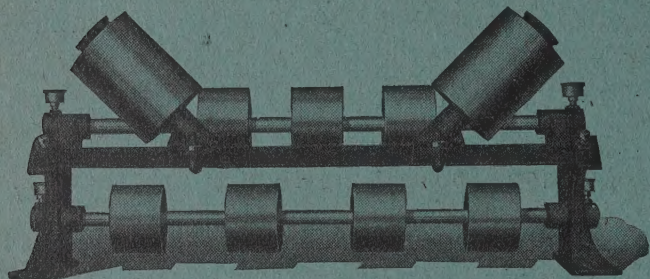
THE new book, "Milling Kinks," is uniform in size and style with the "Book of Wrinkles" and contains 169 illustrated devices, many of which are of as much value to Elevator Operators as to Millers and Millwrights. Chapters are included on: Bins, Hoppers and Sinks; Valves and Spouting; Elevators and Conveyors; Receiving, Separating and Cleaning; Roll Auxiliaries; Sifters and Bolters; Belting and Transmission; Blending and Tempering; Filling and Packing; Sampling and Testing; Dust Collection; Lubrication; Heating, Ventilating and Fumigating; Special Tools and Devices; Miscellaneous.

PRICE \$1.00 POSTPAID

MITCHELL BROS. PUBLISHING COMPANY
431 South Dearborn St., Chicago, Ill.



Belt Conveyors of All Kinds



If you are considering the construction of a new elevator or mill or the remodeling of the same, THE WELLER machinery will be found to meet any requirement of your particular case.

Just as the name WELLER signifies superior quality in all types of conveying machinery so will the same standard hold in BELT CONVEYORS.

MANUFACTURERS OF

**Elevating Conveying and Power
Transmission Machinery**

WELLER MANUFACTURING CO.
CHICAGO, ILL.

BOSTON, MASS.
NEW YORK CITY, N. Y.

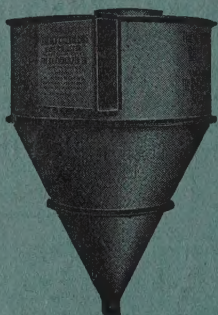
PHILADELPHIA, PA.
PITTSBURGH, PA.

BALTIMORE, MD.
SALT LAKE CITY, UTAH

The "Knickerbocker Cyclone" Dust Collector



For Grain Cleaners
ALL STEEL



Write for Catalog

The Knickerbocker Company

Jackson, Mich.

ARE YOU WORRIED

about the condition of that grain in your bins?
Let us equip your storage with a

Zeleny Thermometer System

to tell you the exact condition of
the grain and cut out the worry

Over 100 Elevators Equipped
Write for Description

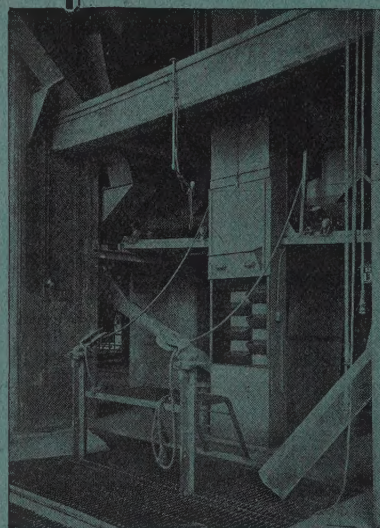
WESTERN FIRE APPLIANCE WORKS
542 South Dearborn Street Chicago

WEBSTER

Grain Elevator Machinery

The biggest users in the world of Elevating, Conveying and Transmission Machinery for grain handling have repeatedly installed Webster Machinery.

In smaller plants, where effective equipment is fully as important, Webster Machinery holds the same prominent place.



To plan new structures, repairs or extensions without investigating the Webster Line would seem unwise.

Our engineers are ready to make recommendations based upon your requirements.

**The WEBSTER M'F'G
COMPANY**

TIFFIN - OHIO
Offices in Chicago, New
York and Boston.

(203x)

"UNCLE SAM" has now allowed us to purchase steel and resume the manufacture of the

CLIMAX SCOOP TRUCK

which will be glad news for many waiting customers. The Scoop-Truck enables one man to remove more coal or grain from a box car than three men can move in the ordinary way. Ask any of the 5,000 users who have tried it.

Price

Standard - - - \$15.00
Extra Heavy - - - 17.00

F. O. B. Factory

**DETROIT
SCOOP-TRUCK
COMPANY**

2227 W. Jefferson Ave DETROIT, MICH.



ARE YOU WORRIED

about the condition of that grain in your bins?
Let us equip your storage with a

Zeleny Thermometer System

to tell you the exact condition of
the grain and cut out the worry

Over 100 Elevators Equipped
Write for Description

WESTERN FIRE APPLIANCE WORKS
542 South Dearborn Street Chicago



The Supreme Courts have ruled against you, so why put off having a dust collecting system installed to prevent a dust explosion? It doubles the lease of life of your employees and gives you a clean elevator even though you never meet with a loss. We make dust collectors, but collectors alone will not protect you.

Write

THE DAY COMPANY,
Minneapolis, Minn.

Pioneers in the work.